AGENDA

Mansfield Conservation Commission
Wednesday, February 17, 2010
Audrey P. Beck Building
CONFERENCE ROOM B
7:30 PM

1. **Call to Order**
2. **Roll Call**
3. **Opportunity for Public Comment**
4. **Minutes**
   a. January 20, 2010
5. **New Business**
   a. Planned Town Council Presentation
   b. Connecticut Siting Council Application for a Verizon Telecommunication Town in Willington off of Daleville Road (portions of application attached)
   c. Proposal for Preliminary Site Plan Review
   d. Other
6. **Continuing Business**
   a. IWA Referral: Draft Revision of the Wetlands and Watercourses Regulations (Public Hearing Scheduled for 3/1/10)
   b. Proposed State Streamflow Standards and Regulations (2/4/10 letter from R. Miller/UConn)
   c. UConn Drainage Issues including "Master Plan" and proposed dredging at Mirror Lake
   d. UConn Hazardous Waste Transfer Station
   e. Water Supply Issues
      (Willimantic Wellfield Study expected to be completed in March; Findings to be presented at 3/18/10 Water and Wastewater Advisory Committee)
   f. Ponde Place Student Housing Project (well drilling and testing)
   g. Conservation Commission Administrative Issues; Term Limits, etc
   h. USDA Animal Health Research Facility- UConn Depot Campus (no new information)
   i. CL&P "Interstate Reliability Project" (no new information)
   j. UConn Composting Facility (under construction)
   k. Natchaug River Basin project (no new information)
   l. Eagleville Brook Impervious Surface TMDL Project (no new information)
   m. Invasive Plantings (PZC has agreed to revise Zoning Regulations)
   n. Protecting Mansfield's Aquifers (Conservation Commission recommended revisions to Zoning Regulations to be incorporated into Spring 2010 revision proposal)
   o. Other
7. **Communications**
   a. Minutes
      - Open Space (1/19/10) • PZC (1/19/10; 2/1/10) • IWA (2/1/10)
   b. Inland Wetland Agent Monthly Activity Report
   c. Jan/Feb 2010 Connecticut Wildlife
   d. Notice of 2/17/10 CCM Workshop in Glastonbury "Making the Best Land Use Decisions"
   e. Other Correspondence
8. **Other**
9. **Future Agendas**
10. **Adjournment**

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Town of Mansfield
CONSERVATION COMMISSION
Meeting of 20 January 2010
Conference B, Audrey P. Beck Building
(DRAFT) MINUTES

Members present: Quentin Kessel, Scott Lehmann, John Silander, Frank Trainor. *Members absent*: Robert Dahn, Peter Drzewiecki, Joan Stevenson. *Others present:* Jackie D'Amato, Jake Friedman, Marcus Hilditch, William Okeson, Beverly Sims (regarding item 2); Grant Meitzler (staff).

1. The meeting was **called to order** at 7:30p by Chair Quentin Kessel.

2. Ponde Place test wells. Ponde Place LLC has had four test wells drilled on the property to determine whether there is sufficient ground water to supply 45K gpd. Water at high pressure has been injected into the test wells to fracture rock ("hydro-fracking") and liberate water. A 72-hour pump test, now underway, will conclude tomorrow. Neighbors D'Amato, Friedman, Hilditch, Okeson, & Sims expressed concerns about this activity:

- The test well permit requires monitoring a number of existing wells to determine whether pumping has adverse neighborhood effects. However, the wells closest to the test site are not being monitored: Ms. Sims' well was rejected for monitoring because the well-head was covered by an inch of surface water; Mr. Friedman refused to authorize monitoring because Ponde Place LLC would not agree to assume responsibility for any damage it might reveal; Ms. D'Amato & Mr. Hilditch were not approached. Another neighbor dropped out of the monitoring program because her water turned brown after the probe was inserted in her well. {Meitzler suggested that iron deposits on the inside of the well casing might have been disturbed when the probe was inserted.} Since the wells most likely to be adversely affected by hydro-fracking and drawdown are not being monitored, why is the test proceeding?
- Access to the test site has been improved by bringing in fill to raise the bed of the woods road (extending N. from Northwood Rd) where it crosses a wetland. This may impact the wetland; is it authorized by the permit? {Meitzler thought that the required silt barriers were in place and would protect the wetland; he will take another look at the site.}
- The permit authorizes drilling four test wells only if the first two were inadequate, yet all seem to have been drilled at the same time. {Meitzler's impression is that the first two wells reached little water.}

The monitoring issue appears to be the most serious: if monitoring is inadequate, the pump test will have to be repeated, according to Meitzler. Neither the Commission nor anyone else at the meeting knew which wells were being monitored and whether there is reason to believe they are representative. The Commission will ask Greg Padick to clarify the situation. (D'Amato, Friedman, Hilditch, Okeson, & Sims left the meeting.)

3. The draft **minutes of the 16 December 2009 meeting** were approved as written.

4. Joint Presentation to Town Council. Representatives of the Open Space Committee, Parks Advisory Committee, and Conservation Commission will meet tomorrow to plan a presentation to the Town Concil to remind Council members of the value of open space. Kessel will attend.

5. UConn Hazardous Waste Transfer Station. The proposed move of this facility from its current location E. of Horsebarn Hill to near UConn's sewage treatment plant is in limbo. The Commission believes that the transfer station should not be located where an accident or mischief could pollute the Fenton River and its aquifers. Kessel will ask Matt Hart to bring the issue to the Town-Gown Committee.

6. Term Limits. Current Town policy limits terms on committees to no more than ten years in a row (three 3-year terms), though this policy has not been enforced of late. Four current members of the Commission are not in compliance with this policy. The Commission is concerned that enforcement of this policy would make it difficult to assemble a quorum, since long-standing members tend to be more committed and requests that Alternate Members be named have gone unanswered.

7. Streamflow Standards. The DEP has proposed to regulate diversions from streams so that flows adequate for fish and other organisms are maintained. Connecticut's rivers and streams would be placed into four categories by condition, ranging from Class 1 ("having little current development in the watershed and having not been affected by the removal of water from human uses") to Class 4 ("where past practices have resulted in a significant deviation from the natural stream flow pattern and restoring these rivers and streams to a more natural condition would cause and extreme economic hardship"). Flow standards for Class 1 would aim to protect "ecological health"; those for Classes 2-4 would weigh human needs more & more heavily. Flow management plans to achieve these standards would be phased in over time.

While the proposed regulations seem generally good, Lehmann observed that Class 4 streams would essentially be written off: there would be little pressure to restore them to "a more natural condition." Written comments on the proposal will be accepted until 04 February 10.

8. UConn stormwater management. Kessel distributed a new revised version of the draft comment to DEP Commissioner Marrella on UConn's stormwater management plan. After some discussion, the Commission approved the letter, with minor editorial changes (motion: Silander, Trainor; all in favor save Lehmann, who abstained, citing insufficient time to consider whether reservations about the previous version had been adequately addressed).

9. Mirror Lake dredging. UConn has applied to DEP for a permit to dredge Mirror Lake to increase its capacity and improve water quality. Improvements to the spillway called for in the Stormwater Management Plan will be made at this time. Approximately 17.1 K cubic yards of sediment will be removed and dewatered in basins constructed near Rte.195. Clarified water will be pumped back into Mirror L, the dewatered sediment removed to somebody else's back yard. The Commission is concerned that returning nutrient rich water to Mirror Lake will nourish algal blooms there and in Roberts Brook; it wonders whether a limnologist was consulted in planning this project. Kessel will request that the DEP hold a public hearing in Storrs on the permit application.

7. Adjourned at 9:30p. Next meeting: Wednesday, 17 February 2010, 7:30p.

Scott Lehmann, Secretary, 21 January 2010

ROBINSON & COLE LLP

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

February 5, 2010

Via Certified Mail Return Receipt Requested

Gregory Padick
Director of Planning
Town of Mansfield
4 South Eagleville Road
Mansfield, CT 06268

Re: **Application Filed With The Connecticut Siting Council For A Proposed Telecommunications Facility At 343 Daleville Road in Willington, Connecticut**

Dear Mr. Padick:

Pursuant to the requirements of Connecticut General Statutes § 16-50*l*(b), I have enclosed, for your information, a copy of the above-referenced Connecticut Siting Council Application.

If you have any questions regarding this Application you should feel free to contact me or the Siting Council directly at (860) 827-2935.

Sincerely,

Kenneth C. Baldwin

KCB/kmd
Enclosure

EXECUTIVE SUMMARY

Cellco Partnership d/b/a Verizon Wireless ("Cellco") proposes to construct a telecommunications tower and related facility on an approximately 22-acre parcel owned by Muriel Kreuscher (the "Owner") at 343 Daleville Road in Willington, Connecticut (the "Willington Facility"). The Willington Facility will provide wireless service along Route 44, as well as local roads in the southerly portion of the Town of Willington and northerly portion of the Town of Mansfield.

Cellco proposes the construction of a 100-foot telecommunications tower at this site. Cellco will install twelve (12) panel-type antennas, with their centerline at the 97-foot level on the tower. Cellco would also install a 12' x 30' shelter located near the base of the tower to house its radio equipment and a propane-fueled back-up generator. The tower and all ground-mounted equipment will be located within a 60' x 60' fenced compound. A 1,000 gallon propane tank would be installed on a concrete pad in the southeast corner of the fenced compound. Vehicular access to the Willington Facility would extend from Daleville Road over the Owner's existing gravel driveway a distance of approximately 600 feet, then over portions of an existing dirt path to the cell site, an additional distance of approximately 500 feet. Utilities will extend from existing service on the Owner's property approximately 500 feet west of the cell site.

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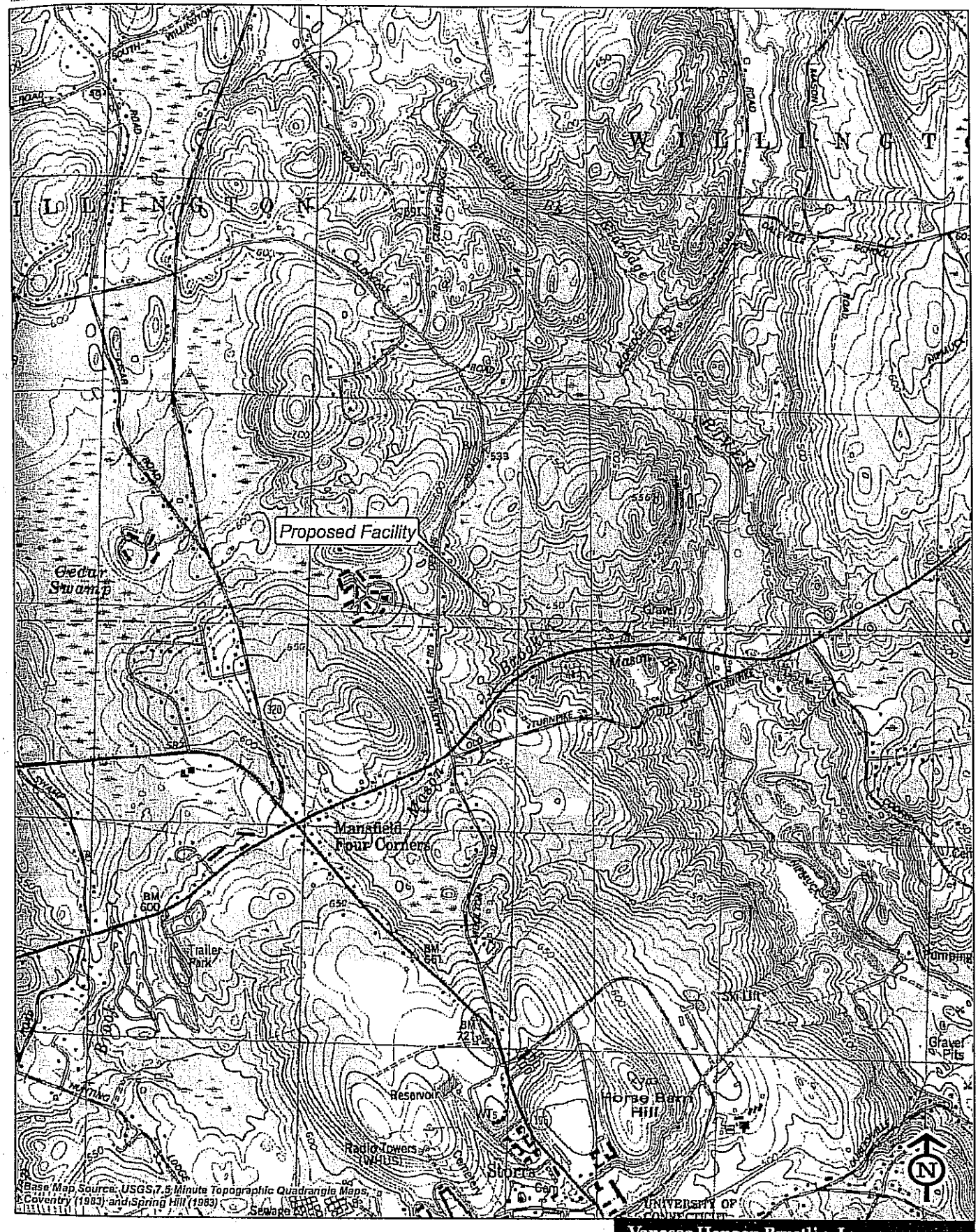

Vanasse Hangen Brustlin, Inc.

USGS Topographic Map
Proposed Verizon Wireless
Telecommunications Facility
Mansfield Four Corners
343 Daleville Road
Willington, Connecticut

Quadrangle Location

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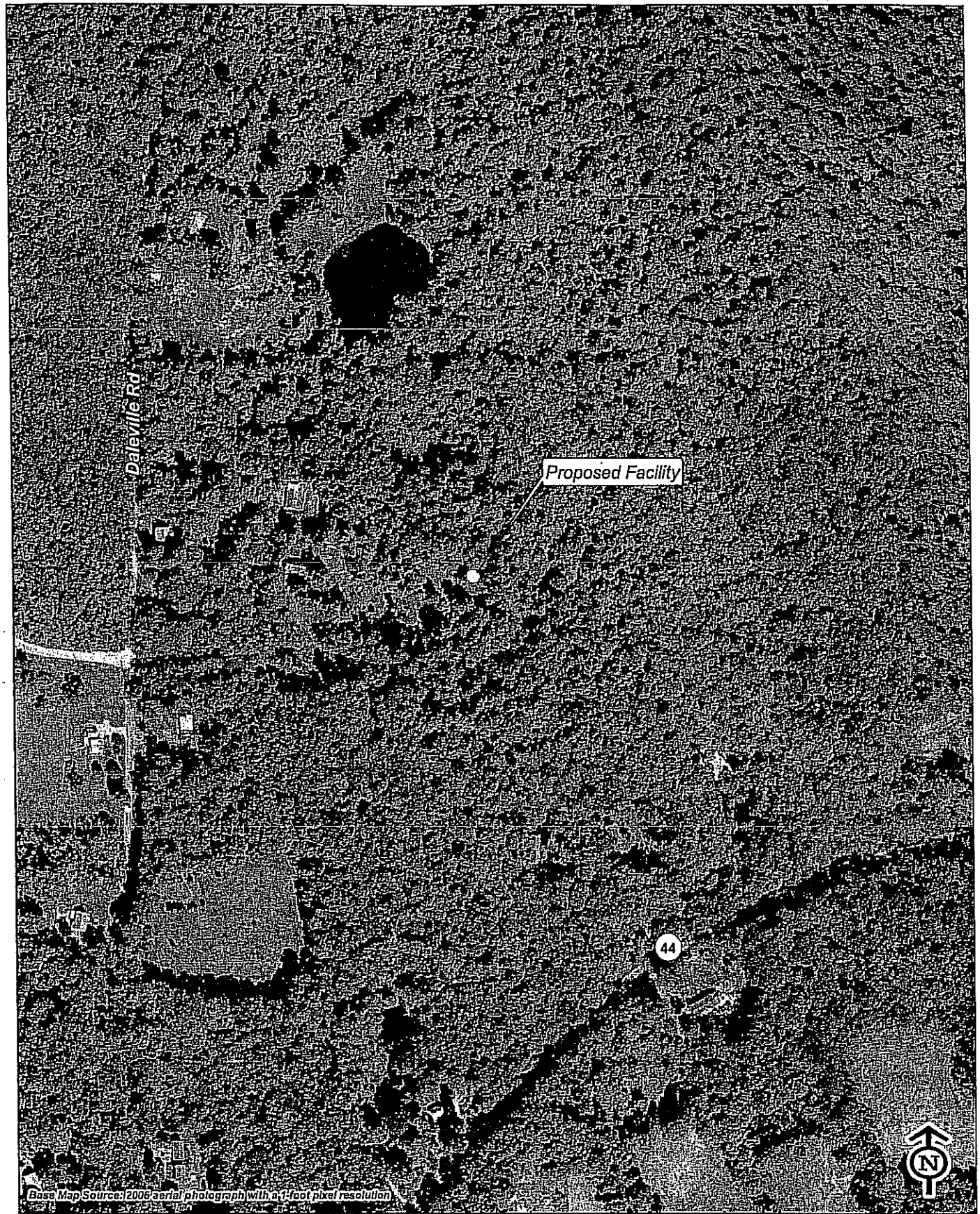


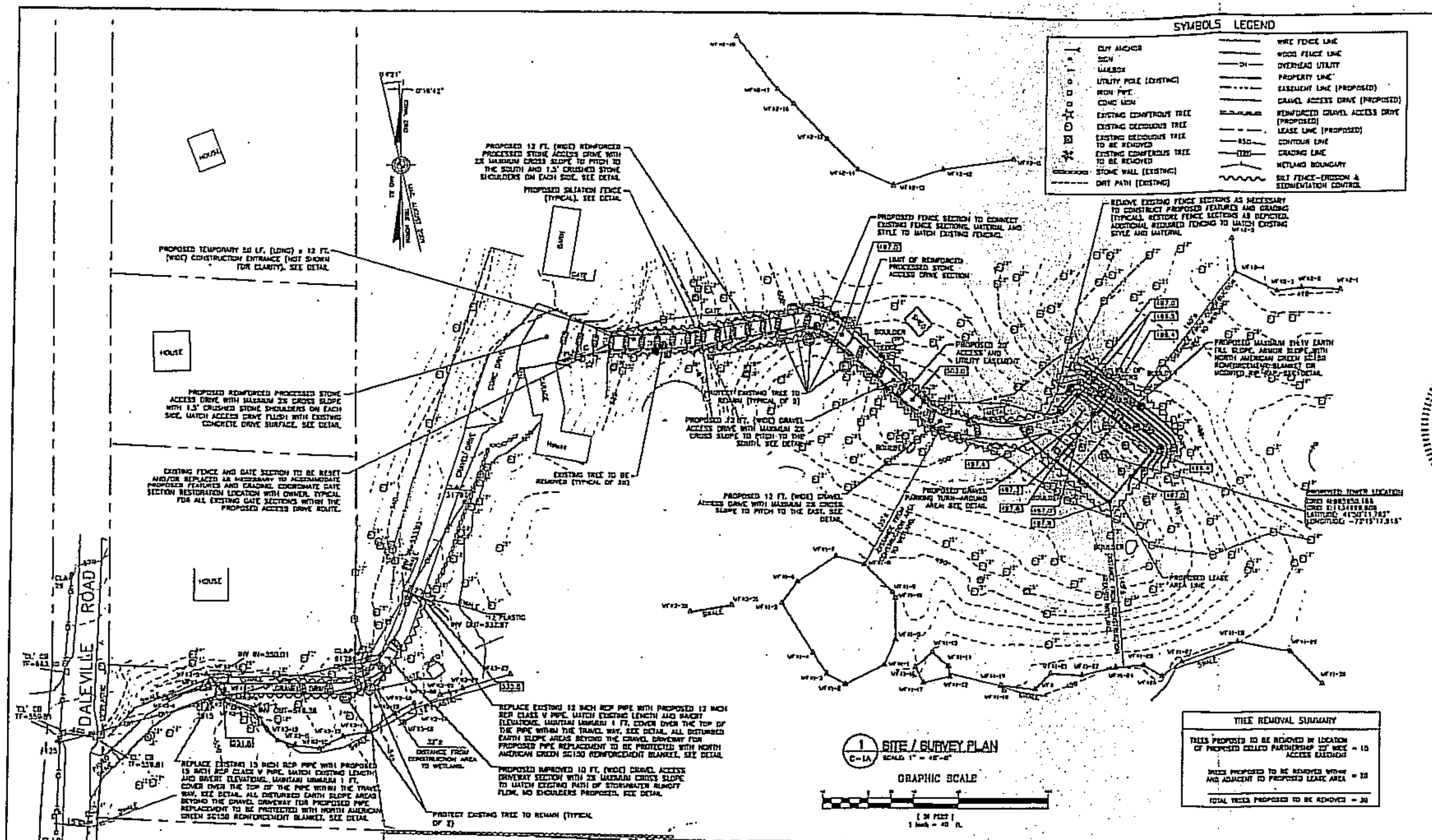
Vanasse Hangen Brustlin, Inc.

200 100 0 200
Feet

Quadrangle Location

2006 Aerial Photograph
Proposed Verizon Wireless
Telecommunications Facility
Mansfield Four Corners
343 Daleville Road
Willington, Connecticut

verizon wireless



SURVEY NOTES

THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES – "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPT. 26, 1996. THE TOPOGRAPHIC SURVEY PORTION OF THIS PLAN CONFORMS TO A VERTICAL ACCURACY OF CLASS T-2 AND IS INTENDED TO BE USED TO DEPICT A PROPOSED TELECOMMUNICATION SITE.

THE PROPERTY/BOUNDARY LINES DEPICTED HEREON ARE COMPILED FROM OTHER MAPS, DEEDS AND LIMITED FIELD SURVEY. THESE LINES ARE NOT TO BE CONSTRUED AS A BOUNDARY OPINION AND ARE SUBJECT TO CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. PROPERTY MAY BE SUBJECT TO ENCUMBRANCES, EASEMENTS, RIGHTS OF WAY AS A TITLE SEARCH REPORT MAY DISCLOSE.

VERTICAL DATUM IS BASED ON NGVD 29.

COORDINATES REFER TO NAD 83.

PARCEL OWNER OF RECORD: MURIEL KRUESCHER
343 DALEVILLE ROAD
WILLINGTON, CT 06279

SURVEY NOTES (CONTINUED)

PARCEL AREA = 22± ACRES.

PARCEL IS IN THE R-80 ZONING DISTRICT.

PARCEL ID: MAP 2 LOT 3 WILLINGTON ASSESSOR'S MAPPING.

PARCEL IS IN ZONE C ON THE FLOOD INSURANCE RATE MAP, WILLINGTON, CONNECTICUT, TOLLAND COUNTY, PANEL 20 OF 25, COMMUNITY PANEL NUMBER 090158 0020 A EFFECTIVE DATE JUNE 15, 1982, BY FEDERAL EMERGENCY MANAGEMENT AGENCY.

THE INLAND WETLAND BOUNDARIES AND FLAG ID DEPICTED HEREON WERE DELINEATED AND FIELD LOCATED ON THE GROUND BY DEAN GUSTAFSON OF VHB.

REFERENCE IS MADE TO THE FOLLOWING MAP:

1) SKETCH PLAN, PREPARED FOR RICHARD P. LEBLOND & JOAN P. LEBLOND, DENNIS ROAD, WILLINGTON, CONN., SCALE 1"=100', DATED APRIL 26, 1976, BY WILLIAM H. STUDHOS SR. LAND SURVEYING

NOT ALL IMPROVEMENTS SHOWN.

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON

THIS MAP IS NOT VALID WITHOUT A LIVE SIGNATURE AND SEAL

A. RAFAEL MARTINEZ LLS #14833 DATE

DESIGNED BY: CFC
DRAWN BY: TSP
CHK'D BY: CFC

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	01/22/10	TSP	CFC	CT SITING COUNCIL

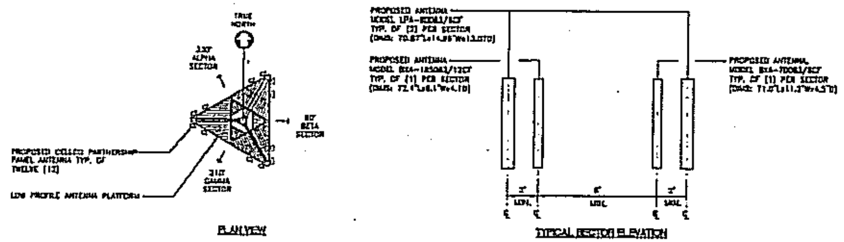
Cellco Partnership d.b.a. Verizon Wireless
WIRELESS COMMUNICATIONS FACILITY
WILLINGTON - MANSFIELD 4 CORNERS
343 DALEVILLE ROAD
WILLINGTON, CT 06279

DATE: 01/22/10
SCALE: AS NOTED
JOB NO. 08104

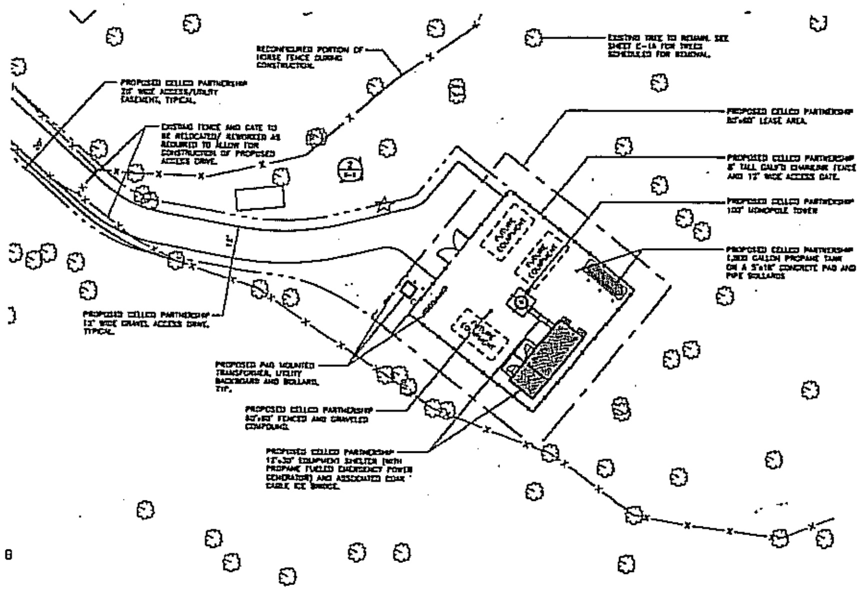
SITE / SURVEY PLAN

C-1A

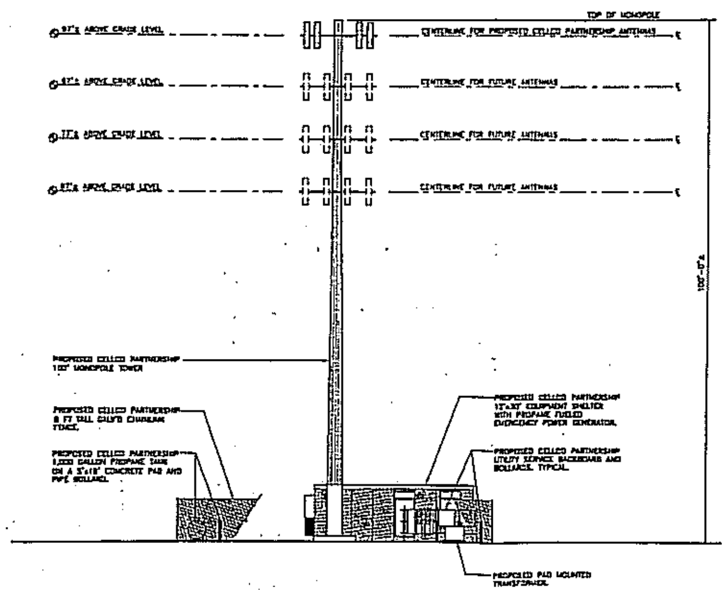
Sheet No. 1 of 2



3 / C-2 ANTENNA MOUNTING CONFIGURATION
NOT TO SCALE



1 / C-2 COMPOUND PLAN
SCALE: 1" = 10'-0"
TRUE NORTH
GRAPHIC SCALE



2 / C-2 NORTHWEST ELEVATION
SCALE: 1" = 10'-0"
GRAPHIC SCALE

Cellco Partnership d.b.a.Verizon Wireless
WIRELESS COMMUNICATIONS FACILITY
WILLINGTON - MANSFIELD 4 CORNERS
(343 DALEVILLE ROAD
WILLINGTON, CT 06279

CENTEK

DATE:	01/22/16
SCALE:	AS NOTED
JOB NO.	06154

COMPOUND PLAN AND ELEVATION

C-2

Sheet No. 4 of 5

3. Environmental Compatibility

Pursuant to Section 16-50p of the General Statutes, in its review of the Application, the Council is required to find and to determine, among other things, the nature of the probable environmental impact, including a specification of every significant adverse effect of the Willington Facility, whether alone or cumulatively with other effects, on, and conflicting with the policies of the state concerning the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forests and parks, air and water purity and fish and wildlife.

a. Primary Facility Impact is Visual

The wireless system of which the proposed Willington Facility would be a part has been designed to meet the public need for high-quality, reliable wireless service while minimizing any potential adverse environmental impact. In part because there are few, if any other adverse impacts, the primary impact of facilities such as this is visual. This visual impact will vary from location to location around a tower, depending upon factors such as vegetation, topography, the distance of nearby properties from the tower and the location of buildings and roadways in a "sight line" toward the tower. Similarly, visual impact of a tower facility can be further reduced through the proper use of alternative tower structures; so-called "stealth installations." Where appropriate, telecommunications towers camouflaged as trees, flagpoles, and bell towers, to name a few, can help to further reduce visual impacts associated with these structures. Attachment 10 contains a detailed Visual Resource Evaluation Report, prepared by VHB, Inc. (the "VHB Report") that assesses the visual impact of the proposed tower and includes photosimulations of the tower at this site for the Council's consideration. Overall, VHB

concludes that areas where the tower would be visible above the tree canopy are limited to approximately 7 acres, or less than one-half of one percent of the 8,042-acre study area. Much of the visibility associated with the Willington Facility occurs nearly two miles to the south on the UCONN campus. Cellco estimates that select portions of five residential properties would have at least partial year-round views of the tower. Areas where seasonal views are anticipated comprise approximately twenty-three (23) additional acres and are mainly located in the immediate vicinity of the Willington Facility.

There are approximately eight (8) residences within 1,000 feet of the Willington Facility, four located in the Town of Willington and four located in the Town of Mansfield. The closest residence is located on the Property and is approximately 440 feet to the west owned by Cellco's landlord. The nearest off-site residence is located approximately 780 feet to the west owned by Jefferson N. Willey at 331 Daleville Road.

Weather permitting, Cellco will raise a balloon with a diameter of at least three (3) feet at the proposed cell site on the day of the Council's hearing on this Application, or at a time otherwise specified by the Council.

b. Environmental Reviews and Agency Comments

Section 16-50j of the General Statutes requires the Council to consult with and to solicit comments on the Application from the Commissioners of the Departments of Environmental Protection, Public Health, Public Utility Control, Economic Development, and Transportation, the Council on Environmental Quality, and the Office of Policy and Management, Energy Division. In addition to the Council's solicitation of comments, Cellco, as a part of its National Environmental Policy Act ("NEPA") Checklist, solicits comments on the proposed facility from

the U.S. Department of the Interior, Fish and Wildlife Service ("USFWS"), Environmental and Geographic Information Center of the Connecticut Department of Environmental Protection ("DEP") and the Connecticut Historical Commission, State Historic Preservation Officer ("SHPO"). Information on the USFWS and DEP reviews regarding impacts on known populations of Federal or State Endangered, Threatened or Special Concern Species occurring at the proposed site are included in Attachment 11. According to the USFWS letter dated January 4, 2010, there are no federally-listed or proposed, threatened or endangered species or critical habitat known to occur in Tolland County, where the Project is located, and as such the proposed development will not result in an adverse effect to any federally listed, endangered or threatened species.

In its comment letter dated March 13, 2008, the DEP stated that it "has records of a state species of special concern, Wood Turtle (*Glyptemys insculpta*) in the vicinity of [the] project". (See Attachment 11 DEP letter dated March 13, 2008). In response to the DEP, Dean Gustafson with VHB, Inc. completed a Wood Turtle Habitat Survey ("Survey") dated July 25, 2008, for the Property.. In the Survey, Mr. Gustafson describes a methodological plan designed to avoid mortality of the Wood Turtle during construction activity associated with the Willington Facility. On January 21, 2010, Mr. Gustafson contacted the DEP and confirmed that there have been no significant changes to the Property since he prepared the Survey and that its findings are still valid. The Survey and rm. Gustafson's January 21, 2010 letter to DEP are included as a part of Attachment 11.

Also included in Attachment 11 is a letter from the SHPO confirming that the Willington Facility will have no effect on historic, architectural or archeological resources listed or eligible for listing on the National Register of Historic Places.

This review by state administrative agencies furnishes ample expert opinion on the potential environmental impacts from the Willington Facility, in the context of the criteria which the Council must consider.

c. Non-Ionizing Radio Frequency Radiation

The FCC has adopted a standard for exposure to Radio Frequency ("RF") emissions from telecommunications facilities like the one proposed in this Application. To ensure compliance with the applicable standards, Cellco has performed maximum power density calculations for the proposed cell site according to the methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) ("OET Bulletin 65"). The calculation is a conservative, worst-case approximation for RF power density levels at the closest accessible point to the antennas, in this case the base of the tower, and with all antennas transmitting simultaneously on all channels at full power. The calculations indicate that the maximum power density level for Cellco antennas would be 35.43% of the Standard at the Willington Facility.

d. Other Environmental Issues

No sanitary facilities are required for the Willington Facility. The operations at the Willington Facility will not cause any significant air, water, noise or other environmental impacts, or hazard to human health.

E. **Estimated Cost and Schedule**

1. **Overall Estimated Costs**

The total estimated cost of construction of the proposed facility is $785,000. This estimate includes:

(1)	Cell site radio equipment of approximately	$450,000
(2)	Tower, coax and antenna costs of approximately	150,000
(3)	Power systems costs of approximately	20,000
(4)	Equipment building costs of approximately	50,000
(5)	Miscellaneous costs (including site preparation and installation) of approximately	115,000

2. **Overall Scheduling**

Site preparation and engineering would commence following Council approval of Cellco's Development and Maintenance ("D & M") plan and are expected to be completed within two to four weeks. Due to the delivery schedules of the manufacturers, installation of the building and installation of the tower are expected to take an additional two weeks. Equipment installation is expected to take an additional two weeks after installation of the building and installation of the tower. Cell site integration and system testing is expected to require two weeks after equipment installation.

IV. CONCLUSION

Based on the facts contained in this Application, Cellco submits that the establishment of the Willington Facility, at the Property will not have any substantial adverse environmental effects. A public need exists for high quality reliable wireless service in the Town of Willington and throughout Tolland County, as determined by the FCC and the United States Congress, and a

competitive framework for providing such service has been established by the FCC and the Telecommunications Act of 1996. Cellco submits that the public need far outweighs any possible environmental effects resulting from the construction of the proposed cell site.

WHEREFORE, Cellco respectfully requests that the Council grant this Application for a Certificate of Environmental Compatibility and Public Need for the proposed Willington Facility.

Respectfully submitted,

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

By: 

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, Connecticut 06103-3597
(860) 275-8200
Attorneys for the Applicant

TOWN OF MANSFIELD
OFFICE OF PLANNING AND DEVELOPMENT

GREGORY J. PADICK, DIRECTOR OF PLANNING

Memo to: Mansfield Town Council
Mansfield Conservation Commission
From: Gregory Padick, Director of Planning
Date: January 22, 2010
Re: Proposed Inland Wetlands Regulation revisions

The attached 1/21/10 draft revisions to Mansfield's Inland Wetlands Regulations and associated legal notice are referred to you for review. The proposed revisions also have been referred to the Commissioner of the CT. Department of Environmental Protection and Town Attorney. The draft revisions also have been filed with the Town Clerk and posted on the Town's web site.

A Public Hearing has been scheduled for March 1, 2010. Any comments on the draft revisions must be submitted prior to the close of the public hearing. Please contact me at 429-3329 if you have any questions regarding this referral.

PAGE
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University of Connecticut
Office of the Vice President and Chief Operating Officer

Office of Environmental Policy

Richard A. Miller, Esq.
Director

February 4, 2010

Paul E. Stacey
Department of Environmental Protection
Bureau of Water Protection and Land Reuse, Planning & Standards Division
79 Elm Street
Hartford, CT 06106–5127

Re: Comments on the Proposed Stream Flow Standards and Regulations

Dear Mr. Stacey:

The University of Connecticut offers these comments on the Department of Environmental Protection's proposed stream flow standards and regulations. The University is a supplier of public water for the campus communities in the Storrs and Mansfield Depot areas of Mansfield, CT. UConn is responsible for providing potable water for approximately 22,500 students and 4,200 faculty and staff as well as nearby municipal and private customers and a state correctional facility. Two well fields with registered diversions, one along the Fenton River and another along the Willimantic River, provide the water to meet the needs of the UConn community.

UConn supports CT DEP efforts to protect stream and river habitats while balancing the need to maintain an adequate water supply to meet human demands. Our Fenton River in-stream flow study[1] and imminent Willimantic in-stream flow study[2] will serve as the basis for our comprehensive, sustainable wellfield management plan. We believe the studies and attendant wellfield operating guidelines, which reduce pump rates according to stream flows, is a clear example of what the Department proposes as a "flow management compact." However, to be truly workable, the regulations should allow for individual flow management plans that are by and between a single operator and the Department.

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[1] *Long-Term Impact Analysis of the University of Connecticut's Fenton River Water Supply Wells on the Habitat of the Fenton River*

[2] *Long-Term Impact Analysis of the University of Connecticut's Water Supply Wells on the Fisheries Habitat of the Willimantic River*

An Equal Opportunity Employer

31 LeDoyt Road Unit 3055
Storrs, Connecticut 06269-3055

Telephone: (860) 486-8741
Facsimile: (860) 486-5477
e-mail: rich.miller@uconn.edu

Given our comprehensive stream flow studies described above, UConn is well-positioned to meet the narrative standard in the regulations as drafted. However, we have the following specific concerns that if addressed appropriately would ensure our ability to provide a safe and reliable water supply while still being mindful of the intent of the proposed regulations to protect stream flow and habitat.

One of our concerns is that the proposed regulations would allow the Department to re-open a diverter's compact to adjust the previously approved conditions. A water management compact should be binding for its approved duration such that the holder of the compact can effectively plan to meet current and future water demands.

Another concern is the regulation's lack of a variance that could provide temporary relief from the conditions of an approved flow management compact during the rare, albeit possible, situations when the compact's constraints create a legitimate public health risk. Slight changes in the regulations could remedy our concern. The drought-trigger relief available to dam operators in §26-141b-6(a)(4) should be similarly extended to all public water supply activities regulated under the statute.

While we have been advised that a compact could be written with drought contingencies that allow for increased withdrawals to address public safety concerns, these increased withdrawals could create a condition that conflicts with the regulation's narrative standard. Since §26-141b-7(b)(1)) requires that a compact must comply with the narrative standard, we question if such a compact could ever be approved by DEP.

Further, any variance available under these regulations should be jointly granted by both DEP and the Department of Public Health. The variance process should have a defined period up to ten days by which time the request must be answered or be deemed granted. This would allow the variances to be granted within a meaningful timeframe in context of drought response. For more immediate emergencies, an automatic variance or exception should be included.

As the Department is aware, we have worked towards a more efficient water system that has less impact on stream flows through several infrastructure improvements – including a significant upgrade to a main transmission line in 2006, prompt responses to on-going leak detection surveys, and enhanced controls and data acquisition for our water production system. UConn's water conservation efforts include community outreach, higher efficiency standards for all new construction, completion of a report identifying potential water conservation opportunities, a water meter installation program that helps to prioritize buildings for retrofitted improvements, and on-going research and design into treating and reusing sewer effluent.

We recognize that our ability to further many of these conservation goals may be unique to the University setting. As a result, we have achieved significant gains that, when combined with our wellfield management strategies and infrastructure improvements, have resulted in a comprehensive water supply and demand program. With the above recommendations, we believe such a program will allow us to satisfy the regulation's goal of achieving a sustainable balance between ecological and human needs.

Thank you for this opportunity to comment. If you have any questions or would like to further discuss our comments, please contact me or Jason Coite, Environmental Compliance Analyst, at 860-486-9305.

Sincerely,

Richard A. Miller

Richard Miller
Director, Environmental Policy

cc: President Michael Hogan, University of Connecticut
Barry Feldman, Vice President/Chief Operating Officer, University of Connecticut
Jeffrey Reynolds, Interim Associate Vice President, University of Connecticut
Thomas Callahan, University of Connecticut Health Center
Lori Mathieu, Public Health Services Manager, Department of Public Health
Peter Pezanko, Connecticut Water Company
David Radka, Connecticut Water Company

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Mansfield Open Space Preservation Committee
Minutes for January 19, 2010

Members present:
Vicky Wetherall, Jim Morrow, Quentin Kessel, Steve Lowrey, and Ken Feathers

1. Chairman Jim Morrow called the meeting to order at 7:35 PM

2. Wetherall/Kessel: Motion to approve the minutes of December 15, 2009, Lowrey abstained motion carried.

3. No visitors

4. Public Comment: No public present.

5. Old Business:
   - Committee term of service: consensus was for the current members to serve until reappointed or dismissed.
   - Committee Charge: OK as written
   - Joint meeting with Sustainability Committee moved to later in the meeting.

6. New Business:
   - Open space Referrals: Motion to enter Executive Session to discuss land acquisition Wetherall/Feathers, enter executive session at 7:56 PM, come out of executive session at 8:38 PM.
   - Motion to send land acquisition recommendations to Council as discussed, Wetherall/Feathers, motion passed.

7. Reports from staff: No staff present

5. Old business:
   Committee discussed items to bring to the Sustainability Committee on January 27th. Wetherall will write up list.

8. No Communications

9. Future agendas: Not discussed

10. Motion to adjourn Feathers/Wetherall, motion carried. Meeting adjourned at 8:57 P.M.

Respectfully submitted
Stephen Lowrey

PAGE
BREAK

MINUTES

MANSFIELD PLANNING AND ZONING COMMISSION
Regular Meeting, Tuesday, January 19, 2010
Council Chamber, Audrey P. Beck Municipal Building

Members present:	R. Favretti (Chairman), M. Beal, J. Goodwin, R. Hall, K. Holt, P. Plante, B. Pociask, B. Ryan
Members absent:	vacant position
Alternates present:	G. Lewis, Kenneth Rawn
Alternates absent:	Vera Stearns
Staff Present:	Gregory Padick (Director of Planning)

Chairman Favretti called the meeting to order at 7:01 p.m. Alternate Lewis was appointed to act to fill the member vacancy for the duration of the meeting.

Minutes:
1/4/10- Hall MOVED, Holt seconded, to approve the 1/4/10 minutes as written. MOTION PASSED with all in favor. Beal and Holt noted that they listened to the tapes.

Zoning Agent's Report:
Padick updated the Commission in Hirsch's absence. Five violation notices have been issued to E. Hall with no response from him. A cease and desist order will be pursued unless a response is received. The vehicles at the intersection of routes 195 and 320 have been removed.

Old Business:
1. **Potential Re-Zoning of the "Industrial Park" zone on Pleasant Valley Rd and Mansfield Ave.**
   Padick referenced his 1/14/10 memo adding that he has re-established contact with the property owner's attorney who has passed on her legal assessment to the Hussey's. Padick anticipates their comments for the next meeting.

New Business:
1. **Proposed Revision to Article X. Section C regarding Political Signs**
   Padick referenced his 1/14/10 memo and draft political sign revisions. The issue of political signs on Town property was raised and it was the consensus of the Commission to consult with the Town Attorney and Town Manager. Members agreed to present these political sign revisions along with other anticipated regulation revisions at a later date rather than at a special meeting.

Public Hearing:
Special Permit Application, Proposed Fitness Center at the Eastbrook Mall, 95 Storrs Rd, Cardio Express LLC., applicant, File # 1290
Chairman Favretti opened the Public Hearing at 7:16 p.m. Members present were Favretti, Beal, Goodwin, Hall, Holt, Plante, Pociask, Ryan, and alternates Lewis and Rawn. Lewis was appointed to act. Padick read the legal notice as it appeared in the Chronicle on 1/5/10 and 1/13/10 and noted the following communications: a 1/14/09 memo from G. Padick, Director of Planning and a 1/12/10 memo from G. Meitzler, Assistant Town Engineer. Padick noted that the applicant contacted the office and requested a continuation of the public hearing, adding that staff has not been able to verify neighborhood notification at this time.

Pociask questioned the hours of operation listed in the Statement of Use noting that it appears to be a 24 hour operation. He expressed concern for security in the Mall. Noting no audience and no further questions or comments from the Commission, Plante MOVED, Pociask seconded, to continue the public hearing until February 1, 2010. MOTION PASSED UNANIMOUSLY.

New Business, continued:

2. **Notice of 1/25/10 Town Council Hearing on Proposed Ordinance on Off-Street Parking for Residential Rental Properties**
   Padick reviewed the proposed ordinance and answered questions regarding enforcement, cost to property owners, when they would be required to comply, provisions for exceptions and if properties in existence would be "grandfathered". Padick noted that this will affect 275 properties in Mansfield and encouraged members to attend the 1/25/10 hearing that will be held by the Town Council.
3. **USDA Animal Health Research Facility at UConn Depot Campus**
   Noted.

Reports of Officers and Committees:
None.

Communications and Bills:
Peter Plante asked Padick when UConn's Draft Water Supply report will be finalized; Padick noted that it will be available for distribution in the next few weeks.

Adjournment:
Chairman Favretti declared the meeting adjourned at 7:57 p.m.

Respectfully submitted,

Katherine Holt, Secretary

DRAFT MINUTES

MANSFIELD PLANNING AND ZONING COMMISSION
Regular Meeting, Monday, February 1, 2010
Council Chamber, Audrey P. Beck Municipal Building

Members present:	R. Favretti (Chairman), M. Beal, J. Goodwin, R. Hall, K. Holt, P. Plante, B. Pociask,
Members absent:	B. Ryan
Alternates present:	G. Lewis, K. Rawn, V. Stearns
Staff Present:	Gregory Padick (Director of Planning)

Chairman Favretti called the meeting to order at 7:19 p.m. Alternates Rawn and Stearns were appointed to act.

Holt MOVED, Stearns seconded, to add to the agenda the Democratic Town Committee's recommendations. MOTION PASSED UNANIMOUSLY.

Holt MOVED, Hall seconded, to add to the agenda the Draft Policy on Transparency and Open Government from the Town Council Personnel Committee. MOTION PASSED UNANIMOUSLY.

Minutes:
1/19/10-Hall MOVED, Pociask seconded, to approve the 1/19/10 minutes as written. MOTION PASSED UNANIMOUSLY.

Zoning Agent's Report:
Hirsch updated the Commission about a cease and desist order that has been issued for the Hall site, and if no response is received, the issue will be turned over to the Town Attorney. Hirsch noted the following items: 1) he has heard from contractors about the letters he sent regarding the regulation change permitting contractors' home occupations; 2) there are three new food service applications in the UConn Campus area. Favretti asked Hirsch to research the regulations that regulate the number of neon signs allowed in business window.

Public Hearing:
Special Permit Application, Proposed Fitness Center at the East Brook Mall, 95 Storrs Rd, Cardio Express LLC., applicant, File # 1290
Chairman Favretti opened the continued Public Hearing at 7:25 p.m. Members present were Favretti, Beal, Goodwin, Hall, Holt, Plante, Pociask, and alternates Lewis, Rawn and Stearns. Alternate Rawn and Stearns were appointed to act. Gregory Padick, Director of Planning noted the following communications received and distributed to members of the Commission: a 1-12-10 memo from G. Meitzler, Assistant Town Engineer; a 1-14-10 memo from G. Padick, Director of Planning; and a 1-27-10 memo from G. Padick, Director of Planning.

Peter Rasconi, President of Cardio Express, reviewed the application and the history of his company, noting this would be his 6th location, if granted approval. He plans to locate in the 9,800 square foot space previously occupied by The Hoot.

Pociask questioned the hours of operation, expressing concern for the safety of the mall and its staff. Rasconi replied that Monday - Friday are 24-hour operations, Saturday's hours will be from 7am-7 pm, and Sunday's are from 7am-5 pm. Rasconi added that at this time they would not pursue a 24-hour operation and would mostly likely operate from 5am-10pm until they can ensure adequate security and staff coverage.

John Fortier, East Brook Mall, property manager, related that the property has 24-hour security coverage and 24-hour interior and exterior camera surveillance in addition to 24-hour lighted parking areas.

Pociask questioned if there is adequate water and sewer for the locker-room area. It was stated that the property is served by municipal water and sewer. Approval is required for both services prior to the issuance of permits. Padick noted that verification of neighborhood notification has not yet been received and his recommendation

would be to continue the public hearing. Hall MOVED, Holt seconded, to continue the Public Hearing until February 16, 2010. MOTION PASSED UNANIMOUSLY.

Added agenda items:

Democratic Town Committee's PZC Alternate and Full Member Recommendations

Holt MOVED, Hall seconded, to appoint alternate Gregory Lewis as a full member of the PZC. MOTION PASSED UNANIMOUSLY.

Fred Loxsom introduced himself and answered questions. Noting no further questions, Rawn MOVED, Holt seconded, to appoint Fred Loxsom as a PZC alternate. MOTION PASSED UNANIMOUSLY.

Favretti reminded both Lewis and Loxsom to be sworn in by the Town Clerk prior to the next meeting.

Draft Policy on Transparency and Open Government from the Town Council Personnel Committee

The consensus of the Commission was to review said policy and be prepared to discuss it at the next meeting.

Old Business:

1. **Potential Re-Zoning of the "Industrial Park" zone on Pleasant Valley Rd and Mansfield Ave.**
   Padick gave the history of prior drafts and plans that led to the current draft. He noted the 1-26-10 written response from the Hussey's Attorney, Kari Olson, which stated the Husseys are willing to come to a meeting to discuss the current revisions further. After brief discussion, the consensus of the Commission was to move forward with the draft regulations without further meetings with the Husseys or their attorney. Padick commented that he will make some minor changes in the draft prior to the next meeting at which time a date for Public Hearing can be set.
2. **Proposed Revision to Article X, Section C regarding Political Signs**
   Padick noted his 2-1-10 memo and stated that the Town Attorney feels the draft revision can be sent to Public Hearing and can include that no political signs are allowed on town property. After extensive discussion, the consensus of the Commission was to not request the Town Council make a policy, but rather to include this item as one of the regulations revisions for the next Public Hearing.
3. **Verbal feedback from Town Planner Re: Proposed Parking Ordinance for Residential Rental Properties, Zoning Definition of Family, Student/Tenant Registry Ordinance**
   Padick briefed the commission that he is currently working on plans to modify the current zoning definition of family, and he noted the Town Council is working on a draft student registry and a proposed parking ordinance that already has been presented at a Town Council Public Hearing.

New Business:

1. **New Special Permit Application, Proposed Sale of Alcoholic Liquor at Jack Rabbit's Restaurant, 1244 Storrs Road, File #1291**
   Holt MOVED, Hall seconded, to receive the Special Permit application (file #1291) submitted by Jack Rabbits of Storrs, LLC for the sale of alcoholic liquor, on property located 1244 Storrs Road, (Storrs Commons) owned by Storrs Associates as shown and described in application submissions, and to refer said application to the staff, for review and comments and to set a Public Hearing for 2/16/10. MOTION PASSED UNANIMOUSLY.
   Plante requested that Padick provide the linear distance between the proposed business and E.O. Smith High School and the Church on Dog Lane for the next meeting.

Reports of Officers and Committees: None.

Communications and Bills: Noted.

Adjournment:

Chairman Favretti declared the meeting adjourned at 8:51 p.m.

Respectfully submitted,
Katherine Holt, Secretary

DRAFT MINUTES
MANSFIELD INLAND WETLANDS AGENCY
Regular Meeting
Monday, February 1, 2010
Council Chambers, Audrey P. Beck Municipal Building

Members present:	R. Favretti (Chairman), M. Beal, J. Goodwin, R. Hall, K. Holt, P. Plante, B. Pociask,
Members absent:	B. Ryan
Alternates present:	G. Lewis (7:03 p.m.), Kenneth Rawn, Vera Stearns
Staff present:	G. Meitzler (Wetlands Agent)

Chairman Favretti called the meeting to order at 7:01 p.m. Alternates Rawn and Stearns were appointed to act.

Minutes:
1-4-10 - Hall MOVED, Holt seconded, to approve the 1-4-10 minutes as written. MOTION PASSED UNANIMOUSLY. Holt and Beal noted for the record that they listened to the tapes.

Communications:
The 1-20-10 draft Conservation Commission Minutes and the 1-27-10 Wetlands Agent's Monthly Business report were noted.

Old Business:
Informational:
UConn re: DEP application notice - Mirror Lake dredging
Meitzler noted that the Conservation Commission has drafted a letter and received approval from the Town Council to send it to the DEP requesting them to hold a Public Hearing on the project. Meitzler will update the Agency on the status of this project at the next meeting.

Public Hearing:
W1445 - Chernushek - additional gravel removal and construction haul road
Holt MOVED, Beal seconded, that the IWA accept the 65-day extension as requested by Henry Chernushek in a letter dated January 12, 2010, and to set a Public Hearing for March 1, 2010. MOTION PASSED UNANIMOUSLY.

Regulation Revisions:
W1447 - IWA Regulation Revision
Item was tabled pending a 3/1/10 Public Hearing.

New Business: None

Reports of Officers and Committees: None.

Other Communications and Bills: William Okeson submitted an undated letter signed by him and Beverly Sims, and an 11/9/2009 letter from Roger Kellman, P.E., F.A. Hesketh & Associates, Inc, with accompanying data sheet. He expressed concern that no neighboring wells have been monitored during the testing of the Ponde Place well drilling, and he requested that the IWA and staff keep this information on record and to inform him of any new updates. He further stated that they feel the lack of monitoring is a violation of the agreement with Ponde Place who have not been acting in good faith.

Adjournment:
Favretti declared the meeting adjourned at 7:18 p.m.

Respectfully submitted,
Katherine Holt, Secretary

PAGE
BREAK

Memorandum: January 27, 2009
To: Inland Wetland Agency
From: Grant Meitzler, Inland Wetland Agent
Re: Monthly Business

W1419 - Chernushek - hearing on Order

3.10.09: The hearing on the Order remains open and should continue until the permit application under consideration is acted upon.
(The Order was dropped on approval of the application required in the Order.)

4.30.09: Former rye grass seeding is beginning to show green. I spoke with Mr. Chernushek this afternoon who indicated health problems that delayed his starting but indicated he will be working this weekend. I will update on this Monday evening.

5.26.09: A light cover of grass growth has come in. Mr. Chernushek indicates health problems and two related deaths have delayed his start of work since the permit approval was granted. It appears that some light work has started. He has further indicated that he will start a vacation on June 22, 2009 to finish the work.

6.13.09: Work is underway.

6.21.09: Bulldozer work has been completed - finish work remains. The additional silt fencing has been placed along the northerly wetlands crossing, and the additional pipe under the southerly crossing has been installed. Remaining work includes finish grading along edges, spreading stockpiled topsoil, and establishing grass growth.

7.01.09: I spoke with Mr. Chernushek who indicated he expects work to be completed by September 1, 2009. (Site photo attached).

9.03.09: Mr. Chernushek has been working on levelling and grading. The formerly seeded areas have become fairly thick growth surrounding the central wet areas. He has further indicated that with the combination of weather and the slower moving of earth with the payloader compared to the earlier rented bulldozer has led him to contact contractors for earth moving estimates which have not yet been received. The site is not yet finished but has remained quite stable.

9.12.09: I met with Mr. Chernushek today and discussed again what his plans are for stabilizing this work site.

10.01.09: Mr. Chernushek indicated he has not heard back from the contractor he had spoken with about removing material, and is in progress of contacting others. In discussion is removal of material from the site either within the 100 cubic yard limit or obtaining a permit for such removal.

10.28.09: Mr. Chernushek has indicated he has made arrangements with DeSiato Sand & Gravel to remove 750 cubic yards of material. Staff is in the process of clarifying permit requirements.

W1445 - Chernushek - application for gravel removal from site

11.30.09: Packet of information representing submissions by Mr. Chernushek, Mr. DeSiato and myself is in this agenda packet as Mr. Chernusheks's request for modification.

12.29.09: Preparation of required information for PZC special permit application is in progress. Tabling any action until the February 1, 2010 meeting is recommended.

1.12.10: 65 day etension of time received.

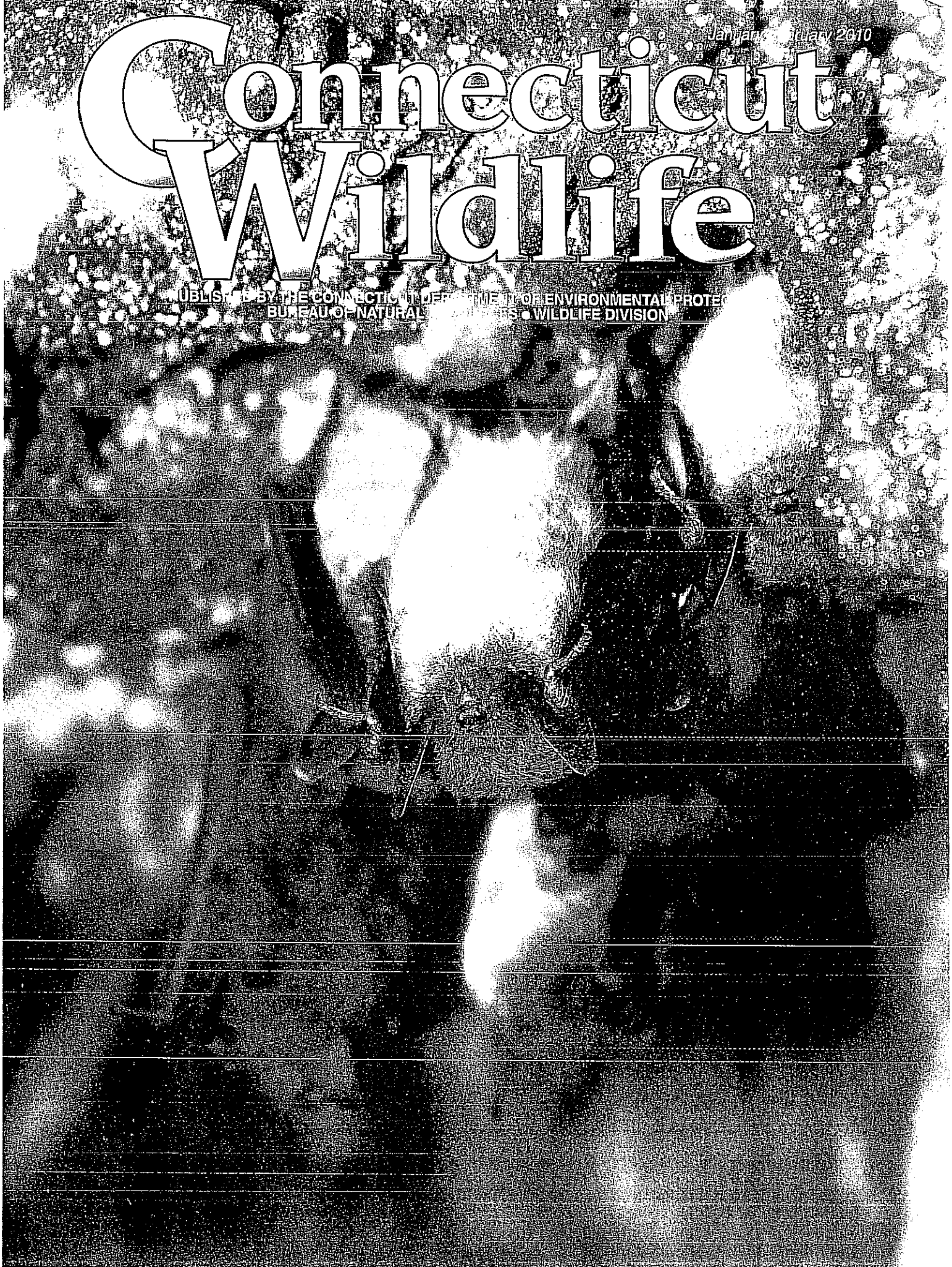
Mansfield Auto Parts - Route 32

12.08.08: Inspection - no vehicles are within 25' of wetlands.
1.16.09: Inspection - no vehicles are within 25' of wetlands.
2.24.09: Inspection - no vehicles are within 25' of wetlands.
3.06.09: Inspection - no vehicles are within 25' of wetlands.
4.14.09: Inspection - no vehicles are within 25' of wetlands.
5.11.09: Inspection - no vehicles are within 25' of wetlands.
6.10.09: Inspection - no vehicles are within 25' of wetlands.
7.16.09: Inspection - no vehicles are within 25' of wetlands.
8.12.09: Inspection - no vehicles are within 25' of wetlands.
9.14.09: Inspection - no vehicles are within 25' of wetlands.
10.27.09: Inspection - no vehicles are within 25' of wetlands.
11.30.09: Inspection - no vehicles are within 25' of wetlands.
12.28.09: There are two cars that need to be moved. Mr. Bednarczyk indicates their payloader is down for repairs and the cars will be moved as soon as it is repaired.
1.27.10: No change - the payloader is apart with parts on order to complete repairs. It is of 1986 vontage and finding parts is a major proposition.

January/February 2010

Connecticut Wildlife

PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF NATURAL RESOURCES • WILDLIFE DIVISION



Eye on the Wild

Year in Review 2009

Annual reports were occasionally published by the Wildlife Division, but became a regular feature of the January/February issues of Connecticut Wildlife *magazine, starting in 2002. The first "Year in Review" highlighted Division accomplishments in 2001. This current issue of the magazine continues the tradition, looking back at the accomplishments of 2009. This summary is an excellent resource on current or recently completed projects, as well as a historical record. Annual reports published in the early years of the Division's existence, along with old issues of the "Connecticut Wildlife Conservation Bulletin," were valuable sources of information when we compiled an issue of* SCOPE *(the precursor to* Connecticut Wildlife*) in 1991 that highlighted the 125-year history of wildlife management in Connecticut. That historical issue gave an account from the early years when employees of the Board of Fisheries and Game managed only game species to 1991 when responsibilities of the Wildlife Division encompassed all wildlife species. The 150th anniversary won't be marked until 2016, but it will be interesting to look back through old and recent annual reports to obtain a new picture of how much the Division and wildlife management have changed over the decades.*

As I assembled all of the reports written by Division staff and put this issue together, I was amazed at how much was accomplished in a year of tight budgets and early retirements. Despite reductions in funding, Division staff members, in some capacity, were able to carry on or complete most, but not all, of their projects. Their assistance in putting together this comprehensive issue of Connecticut Wildlife *is greatly appreciated.*

This annual report issue also marks the first full-color edition of the magazine. Connecticut Wildlife *has come a long way since its inception in 1981, when it began as an informal newsletter called* SCOPE*. Originally typewritten and copied on a copy machine, with no photographs,* SCOPE *transformed over the years into a magazine format with color photographs, in-depth articles, additional pages, and more readers. Photographer and Media Designer Paul Fusco and I have been involved with the transformation since 1988 and we plan to continue improving the magazine into the future.*

Biggest Story of the Year

As a Division, we all believe that each and every one of the topics covered in the "Year in Review" is important. However, there is one that stands out on its own, mostly due to the urgency it presents, – the threat of white-nose syndrome to bat populations. So much is still unknown about this strange affliction that is causing an alarming and precipitous decline in bat numbers throughout Connecticut and the Northeast. Biologists are working diligently to learn more. Be sure to read the section on page 6 of this issue that provides the most recent updates on white-nose syndrome and Connecticut's efforts to monitor its effects. Kathy Herz, Editor

Cover:

Little brown bats hibernating in a Connecticut hibernaculum. Bat populations are plummeting because of white-nose syndrome, which is characterized by a white, fuzzy fungus that invades the face, ears, and wings of bats while they hibernate.

Photo by Paul J. Fusco

Connecticut Wildlife

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www.ct.gov/dep

The Federal Aid in Wildlife Restoration Program was initiated by sportsmen and conservationists to provide states with funding for wildlife management and research programs, habitat acquisition, wildlife management area development, and hunter education programs. Connecticut Wildlife contains articles reporting on Wildlife Division projects funded entirely or in part with federal aid monies.

ISSN #1087-7525

P. J. FUSCO

The Year in Review 2009

CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION - BUREAU OF NATURAL RESOURCES - WILDLIFE DIVISION

This "Year in Review 2009" provides a summary of the many accomplishments and responsibilities of the DEP Wildlife Division.

Species Research and Management

Nongame Birds

Twenty breeding pairs of bald eagles (state endangered) attempted to nest in 2009. Seventeen pairs fledged 31 chicks; 16 chicks were banded by biologists. Volunteers counted 80 bald eagles (48 adult, 32 immature) during the 2009 Midwinter Bald Eagle Survey in January.

Connecticut recorded 13 pairs of peregrine falcons (state endangered). Ten pairs fledged young. Biologists obtained a chick count of 25 from 9 of the nests, and 9 chicks were banded.

Biologists and volunteers surveyed osprey platforms statewide during the nesting season and banded 79 chicks.

Charles Island, off the coast of Milford, and Duck Island, off the coast of Westbrook, were closed to the public during the heron and egret nesting season to reduce the effect of heavy recreational use on these state-listed species. Division and U.S. Fish and Wildlife Service staff repaired the fencing that protects the interior of the islands where the birds nest.

With the help of fencing and other protection efforts, 44 pairs of piping plovers (state and federally threatened) fledged 74 young and 90 pairs of least terns (state threatened) fledged 11 young. Least tern chicks fledged from only 2 out of 8 nesting areas routinely used by the birds. Terns nesting in the colony at Long Beach in Stratford lost their nests to abnormally high tides. Forty trained volunteers monitored several beaches and distributed educational materials to beachgoers. Twenty-four fireworks permit applications were reviewed for impacts to piping plovers.

Division staff and volunteers conducted summer night bird surveys to determine the distribution of whip-poor-wills and northern saw-whet owls. Sixteen survey routes were completed, and whip-poor-wills were estimated to occupy 27% of the routes. Detections from these surveys have assisted in mapping statewide distributions of these 2 species.

Biologists conducted radio telemetry and invertebrate sampling to identify specific habitat features and management that are associated with foraging use by whip-poor-will, and to determine prey selection and availability.

The Division organized volunteers and staff to conduct surveys to determine the status of owls of greatest conservation need in Connecticut. These winter surveys targeted great-horned owl, barred owl, long-eared owl, and eastern screech owl. A total of 42 statewide survey routes were run at least once during 2006 and 2009. Barred owls were the most abundant owls recorded in the surveys, followed by great-horned, screech, and long-eared owls.

Breeding brown thrashers are difficult to confirm because of their relative rarity, combined with low detection rates. A volunteer conducted targeted surveys at 16 locations to help increase certainty of brown thrasher submissions to Connecticut's Natural Diversity Database, as well as improve understanding of this bird's nesting habitat.

Grassland bird surveys were conducted at Bradley International Airport and the Enfield/Somers prison complex. Despite the rainy spring and summer, the number of birds observed was consistent with previous years.

Early successional habitat is rapidly decreasing in Connecticut, but is being restored through efforts to create habitat for New England cottontails. Early successional birds may benefit from these restoration efforts. Therefore, the Division initiated pre-monitoring of birds at sites that are targeted for New England cottontail habitat restoration. Bird surveys were conducted at Goshen Wildlife Management Area (WMA; Goshen), Housatonic WMA (Kent), and Roraback WMA (Harwinton). Surveys will be continued after the conclusion of management activities to assess effects of the management on early successional bird species.

Division staff and volunteers continued to conduct bird surveys in early successional shrubland habitat across the state to obtain baseline data on species occupancy of managed properties. Targeted habitats included old fields, shrublands, woodland edges, grasslands, and powerline right-of-ways. The species observed at the most sites were gray catbird, eastern towhee, blue-winged warbler, and Baltimore oriole, all of regional

Where Are All the Gray Squirrels?

Where are all the squirrels? This question, in direct contrast to the usual complaints of too many squirrels raiding bird feeders and gardens, inundated the Wildlife Division during fall 2009. Those who called noted the same story, which was corroborated by many of their friends and neighbors. No one could remember the last time they had seen a gray squirrel, noting that it had been weeks since they had needed to refill their feeders. Were the squirrels poisoned? Is there a disease going around? Are they being eliminated by predators?

There are a few potential explanations for this apparent population crash. Squirrel populations often fluctuate widely from year to year. Generally, these population peaks and valleys are in response to food availability – when food is plentiful, so are squirrels! When food isn't readily available, squirrels have to travel longer distances in search of food, making them more vulnerable to predators and accidents. But, there were plenty of acorns this past fall! So, where were the squirrels?

Acorn crops were low during fall 2008 and what acorns were available were small. Acorns are the most important food source for squirrels, thus acorn production dictates the health of the squirrel population. Squirrels depend on acorns to build up fat reserves to help them survive winter. The sparse acorn crop in fall 2008 made it difficult for squirrels to find enough food to make it through the winter and those that did were probably in poor shape and had fewer young this past breeding season. Couple that with an unseasonably cool and wet summer and squirrels had a rough year! It is considerably more difficult for squirrels to keep their blind and helpless young warm and dry in a summer with record rainfall and low temperatures.

Along with significant rainfall comes an increase in mosquitoes, which are carriers of a variety of viruses, including West Nile virus. Squirrels are susceptible to West Nile virus and may have been impacted to a greater extent this year than in past years.

Fortunately, the acorn crop in 2009 was significantly better than in 2008. The acorns were large and plentiful! Squirrels have been able to spread out across the landscape, traveling only short distances before getting their fill of nuts. As a result, they have not been as dependent on sunflower seeds and corn at feeders. Most of the squirrels were probably in good shape going into winter this year and, next summer, females could have two litters with up to 7 young in each. The population should rebound, and the squirrels will be back!

P. J. PUSCO (2)

The brown thrasher is a species of greatest conservation need and difficult to detect through traditional bird survey methods.

conservation concern. The surveys also detected several state-listed species, including alder flycatcher, brown thrasher, sedge wren, and golden-winged warbler.

Chimney Swifts

Division staff and volunteers monitored fall migration staging at known chimney swift roost sites. Activity also was reported throughout the spring migration and summer breeding seasons. Collectively, information was recorded for 22 roost locations, and swifts were active at 17 roosts. Migration activity ranged from a few individuals to over 400 birds. Activity at roosts during summer, combined with an earlier end to fall migration roost activity may be an indication that populations or summer breeding productivity have decreased in Connecticut.

Volunteers conducted Chimney Watch surveys at 30 chimneys in survey blocks in Norfolk, Brookfield, Guilford, Chaplin, and Norwich. Swifts were observed occupying 1 chimney. Data were submitted to the regional database.

Seventy-eight chimneys used for Chimney Watch were revisited in 2009 to determine a rate of chimney capping. Six percent of the chimneys became unavailable between 2008 and 2009 because of capping. The average capping rate by survey block was 14%. According to Breeding Bird Survey data, chimney swifts are declining at a rate of at least 6%. The capping rate may be an indicator of the rate at which nesting habitat is becoming unavailable for chimney swifts, and an explanation for their decline.

Results of Chimney Watch efforts indicated that there are many available but unoccupied chimneys in Connecticut. The Division began investigating if habitat features, other than chimney availability, are important for chimney swifts. DEP staff conducted point count surveys in different habitat types to determine if foraging swifts "prefer" a particular habitat type. The results of these surveys indicated that wetland habitats may be important for foraging, along with chimneys for nesting.

American Woodcock

Woodcock surveys on 10 statewide routes continued in 2009. Survey results provide an index to the status of the woodcock population and its habitat. The average number of woodcock heard per stop in 2009 was 0.26, which is similar to the 0.20 heard per stop in 2008. Since 2003, when surveys began on these routes, there has been no significant change in the total number of birds heard. However, the gradual decline in birds heard on some of the routes is likely the result of increased development and differing land use.

Habitat improvement work at a woodcock/early successional habitat demonstration area at Roraback WMA (Harwinton) commenced in August. Biologists attached radio transmitters to 3 woodcock at the site before the habitat project began to provide an assessment of habitat use before and after the work. The Division expects to conduct 2 workshops on habitat management for woodcock at the demonstration area in 2010. The Connecticut Woodcock Council, Wildlife Management Institute, Beardsley Zoo, and the Natural Resources Conservation Service Wildlife Habitat Incentives Program are funding the demonstration area.

CT Woodcock Council

P. J. FUSCO

The Connecticut Woodcock Council is a volunteer-based, non-profit organization dedicated to promoting public appreciation for American woodcock and other wildlife species associated with early successional habitat. Formed in October 2002, the organization strives to raise money for on-the-ground habitat work. The Council had gained national prominence in 2006 and received a national conservation award in 2007. However, the loss of leadership had made its continued existence tenuous. A new chair of the board (recently retired Wildlife Division Director Dale May), along with new board members, should result in a viable entity into the future. The Woodcock Council is a vital partner for the DEP, not only for assisting with funding, but more importantly, bringing interested private landowners into the mix who want to provide or enhance early successional habitat on their property.

Waterfowl

Leg band return data provide information about survival rates, harvest, and the migratory patterns of waterfowl. Such information is essential for waterfowl management, particularly for assessing the effects of season length and bag limits on harvest rates. Canada geese were banded during the molting period at 47 sites throughout the state. Division staff and volunteers captured 757 adults, 586 juvenile birds, and 430 previously-banded geese.

M. HUANG, WATERFOWL PROGRAM

Seasonal resource technician Libby Beckman ensures a radio transmitter fits a hen black duck properly before releasing the bird as part of a wintering black duck study.

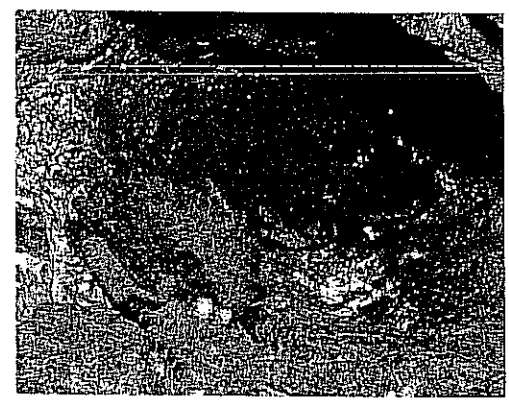
Bad News for Bats

Biennial bat hibernacula surveys were conducted in February and March 2009 at 7 sites, including 2 newly surveyed sites. Big brown, little brown, northern long-eared, and tricolored bats (also known as eastern pipistrelles) were detected. A meager 1,085 bats were counted, reflecting a steep decline of 78% from 2007 when the last survey was conducted. 2009 marked the first decline noted in Connecticut's wintering bat population since these surveys began over 25 years ago. One site experienced an overall decline of over 90%, with the most drastic losses occurring in little brown bats where only 5% of their 2007 population remained.

P. J. FUSCO

Will scenes of tightly clustered little brown bats in a Connecticut hibernaculum be a thing of the past?

These catastrophic losses are the result of white-nose syndrome (WNS). First detected in Connecticut in 2008, and initially in New York in 2006/2007, WNS has already devastated bat populations throughout the Northeast and its rapid spread has the potential to affect bats throughout the country. WNS is characterized by a white, fuzzy fungus that invades the face, ears, and wings of bats while they hibernate. This fungus, recently named *Geomyces destructans*, only grows in cold, moist environments and opportunistically thrives on bats while their natural immunities are repressed for hibernation. Once bats wake from hibernation, they groom themselves and the fungus is no longer visible. Bats affected with WNS often arouse from hibernation months early and leave the protection of the hibernacula. Unprecedented numbers of bats have been found flying outside, during the day and the coldest months of winter, and are ultimately freezing and starving to death. Preliminary data suggest that the fungus may be the causative agent for these mass mortalities; however, further research is being conducted to be sure that no underlying ailments are to blame. Fungal infections are usually no more than an irritation, so it is unclear how a fungus could ultimately kill the bats. Researchers are frantically searching for answers and are hopeful that current studies on treatments, control, and transmission will shed light on this devastating disease. WNS has been confirmed at 3 sites in Connecticut and another 3 sites are suspected to be affected. Connecticut is 1 of 9 states that has documented WNS in its bat populations.



C. KOCER, WILDLIFE DIVERSITY PROGRAM

Hibernating little brown bats affected with the characteristic white-nose syndrome fungus.

The majority of what is known about WNS comes from winter survey work. However, little is known about what happens to the few survivors that leave the winter hibernacula for their summer maternity colonies. Female bats from throughout the region intermingle and roost in numerous colonies across the landscape to raise their young together. This past summer, Division staff and volunteers conducted surveys of maternity colonies by counting bats as they emerged at night to feed. Approximately 8 sites were surveyed statewide and close to 500 bats were reported; however, more than half of those were from one site. Another site where hundreds of bats were reported as recently as last year, had only a small handful return this past spring. Unfortunately, numerous reports of complete colony loss were recorded. Dozens of reports of dead pups and adults found underneath these colonies also flooded the Division throughout the summer. Approximately 50 individual bats were collected and many were sent to the National Wildlife Health Center for necropsy. Results of these analyses point to starvation as the cause of death. The unusually cold and wet summer likely compounded the stress these animals already endured due to WNS, resulting in a difficult summer. Maternity colony surveys will be conducted again in 2010 to monitor changes in these small populations.

Annual preseason duck banding operations yielded 1,302 ducks. Leg bands were placed on 1,190 mallards, 56 wood ducks, 40 American black ducks, 14 mallard x black duck hybrids, 1 blue-winged teal, and 1 northern pintail. An additional 296 ducks were banded postseason as part of a wintering black duck study. This included 169 mallards, 87 black ducks, and 40 mallard x black duck hybrids. All ducks were aged, sexed, and banded before being released.

The second year of a wintering black duck study was finished. The project aims to assess winter carrying capacity, habitat use, and survival of wintering black ducks. This involves monthly food availability sampling at 4 study sites and capturing ducks to attach radio transmitters. Radio transmitters have been placed on 26 female black ducks to assess habitat use and survival. Nine of those hens were lost to various forms of mortality during winter 2008-2009. The final portion of the black duck study is to quantify the amount of food available to the birds in various habitats. Biologists began the third and final year of the study in November 2009.

Atlantic brant (49) were captured and banded during winter 2009.

Wood duck nest boxes (296) on state land were checked during winter 2008-2009. Overall, 81% of the boxes were in good condition. Duck use of nest boxes was 49% in the eastern part of the state and 57% in the western part.

Wood duck boxes were installed in eastern (55) and western (35) Connecticut. Thirty-five nest boxes also were constructed at Flaherty Field Trial Area (East Windsor).

The Division conducted the breeding waterfowl survey, breeding swan survey, triennial Atlantic Flyway summer mute swan survey, breeding marshbird surveys, woodcock surveys, and the midwinter waterfowl inventory.

Wild Turkey

During the 2009 spring turkey hunt-

ing season, 7,376 permits were issued and 1,502 turkeys were harvested (72% adult males, 27% juvenile birds, and 1% bearded hens).

Brood surveys provide an index of annual productivity for the state's turkey population. Survey cooperators reported 333 wild turkey observations, including 2,918 hens – 1,588 with broods and 1,330 without broods. The 2009 average statewide brood size (total number of poults/total number of hens) of 2.0 poults per hen was lower than the 2008 average of 2.2. Brood survey information for the past 3 years has shown a downward trend for wild turkeys across Connecticut. This downward trend may be attributed to wet and cool weather in spring when turkeys are nesting and rearing their young, thus leading to reductions in productivity.

Every spring and summer, the DEP attempts to recapture bears that have either lost their radio collars or have malfunctioning collars. Previously captured bears, like the one pictured above, can become increasingly difficult to recapture as they may become "trap smart."

Mourning Doves

A mourning dove banding program was initiated to assist with regional monitoring efforts. Division staff caught and banded 7 "after hatching year" and 20 "hatching year" mourning doves at 4 different locations throughout the state. The goal is to annually band at least 50 doves as part of the monitoring effort.

Avian Influenza

Targeted surveillance of migratory birds for Asian H5N1 continued as part of a national plan to monitor the potential spread of the disease into North America. Resident Canada geese, mallards, black ducks, greater scaup, long-tailed ducks, Atlantic brant, semi-palmated and least sandpipers, dunlin, sanderlings, and black-bellied plovers are targeted for sampling in Connecticut. Connecticut was given the task to collect at least 600 samples from live and hunter harvested birds in 2009. The Division submitted 807 samples for testing in 2008 – 27 samples from found dead birds, 10 from hunter harvests, and 770 from live bird captures. The Division also continued with mortality event surveillance by conducting weekly mortality surveys at 26 sites throughout the state.

Tricolored Bat Project

The Division conducted a home range study of the tricolored bat (originally known as eastern pipistrille) with funding from Connecticut's Endangered Species/ Wildlife Income Tax Check-off Fund. Although the tricolored bat is considered a common species throughout much of its range, very little research has been done to reveal its summer ecology. Five adult females from a colony in Stamford were fitted with radio transmitters and tracked nightly from early June through mid-July in 2009. Analysis of the data is not yet complete, but should provide useful information about habitat and landscape preferences.

Weasels

2009 marked the conclusion of a 2-year status and distribution study of short-tailed and long-tailed weasels. Trapping efforts were conducted throughout the state at federal, state, and town-owned properties, as well as on several private properties. Between July and December 2008, 11 individuals were captured 19 times during 1,549 trap nights (one trap night was defined as one 24-hour period in which the trap was set). An additional 40 weasel specimens were collected from trappers, licensed wildlife rehabilitators, Nuisance Wildlife Control Operators, nature centers, and by collecting weasels killed by pets and vehicles. Similar to historically described ranges for these species, long-tailed weasels were found throughout Connecticut while short-tailed weasels were found in the northwestern part of the state. Limited data were collected for short-tailed weasels, therefore the species' range may be underestimated. The Division will continue collecting weasel observations and specimens for future analyses.

Black Bears

Winter dens of 16 radio-collared female black bears were inspected in February and March to examine reproduction. Eleven of these sows had litters of cubs, with an average 2.3 cubs per litter. Five sows denned with yearlings born during the previous winter. Biologists estimated the first year survival of

Adult or Yearling Bears Captured/Tagged, 2001-2009

	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
Females Tagged	1	8	4	9	2	5	0	10	10	49
Males Tagged	7	18	11	7	8	10	18	7	12	93
Total Tagged	8	26	15	16	10	15	19	17	22	148
Recaptures	2	12	35	8	21	16	22	5	24	145
Total Captures	10	38	50	24	31	31	40	22	46	293

cubs to be close to 80% by determining the number of yearlings present.

During 2009, 26 previously untagged bears were captured. These included 3 yearlings tagged at their winter den, 15 bears while trapping to recapture research bears, and 8 bears captured at problem sites. Division biologists have captured and tagged nearly 150 bears since 2001.

From October 2008 through September 2009, 1,967 bear sightings and 196 cases of property damage were reported to the Division. During this same period, 21 bears were killed by vehicles and 2 bears tagged in Connecticut were killed by vehicles in other states. This was the highest recorded 1-year total of vehicle-killed bears.

Furbearers

Division employees devote a considerable amount of time and effort responding to calls and e-mails with questions and concerns about furbearer species. Concerns about coyotes, especially in southern towns, and foxes have become more frequent in recent years.

P. J. FUSCO

Trappers are required to have the pelts of certain furbearing species, like the otter, tagged by a DEP representative before they are sold, exchanged, or kept for personal use.

Trapping and hunting harvest totals for beaver, river otter, mink, red fox, gray fox, coyote, and fisher were determined through pelt tagging. Trapping harvest totals for muskrat, raccoon, skunk, opossum, and weasel are estimated from a trapper questionnaire. Season harvest totals for most species and harvests by trappers and hunters decreased compared to the 2007-2008 season. Trappers tagged 973 beavers and 182 fishers in 2008-2009. The proportion of coyotes taken by trappers increased and the proportion taken by hunting decreased in each of the 4 years following a regulation change that allows land trapping for coyotes.

Trappers reported on an annual survey that 74% of the beavers and 100% of the coyotes they trapped were taken to resolve problems. Trapping is valuable in directly resolving beaver conflicts and managing the beaver

Pelt Tagging Totals of Furbearers, 1997-98 through 2008-09 Seasons.

Season	Beaver	River Otter	Mink	Coyote	Red Fox	Gray Fox	Fisher	Total
1997-98	1,163	177	262	166	65	40		1,873
1998-99	708	113	180	136	49	34		1,220
1999-00	1,008	131	113	103	57	15		1,427
2000-01	638	167	127	100	39	13		1,084
2001-02	1,224	216	244	144	56	36		1,920
2002-03	472	138	153	119	64	29		975
2003-04	977	201	165	175	89	24		1,631
2004-05	900	197	258	181	126	39		1,701
2005-06	1,100	238	290	168	83	64	166	2,109
2006-07	1,237	189	251	267	131	101	276	2,452
2007-08	1,095	193	305	212	86	76	214	2,181
2008-09	973	190	165	211	121	75	182	1,917

Habitat for the New England Cottontail

The U.S. Fish and Wildlife Service awarded grants to a consortium of Northeast states participating in a regional initiative to restore 1,200 acres of New England cottontail habitat. The Department received a grant of $223,525 to restore 150 acres on state lands. The New England cottontail is a high priority mammal among species of greatest conservation need and is the only native cottontail rabbit found in Connecticut.

This regional habitat restoration initiative is one major component of a strategy to restore and secure populations of New England cottontails in the Northeast. Activities will include reclaiming old field sites, control of non-native invasive plants, and the clearing of forested areas to encourage regeneration of plants less than 3-inches in diameter to provide dense thickets of cover. Although this project will provide direct benefits to native cottontail populations, these early successional habitats also may benefit a wide array of species of greatest conservation need, including 70 species of butterflies and moths, 3 species of beetles, 40 species of birds, 3 species of amphibians, 11 species of reptiles, and 9 species of mammals. State-lands selected to be managed include Roraback WMA, Goshen WMA (Goshen), Housatonic River WMA (Kent), and Camp Columbia State Park (Morris).


P. J. FUSCO

Master Wildlife Conservationist Jim Batterson (left) assists Wildlife Division District Maintainer Koert Riley at a deer check station during the shotgun/rifle deer hunting season. Koert and Jim are collecting biological data, such as weight, antler beam diameter, and age. They are examining the teeth to estimate the buck's age.

population.

Trapping is allowed on 68 state land units, primarily state forest and wildlife management areas. Forty-seven trappers purchased 93 permits for trapping these parcels during the 2008-2009 trapping season. Approximately 20% of the statewide harvest of many furbearer species was taken on state land.

Observations of bobcats continued to increase. The 227 reported observations comprised the greatest 12-month total yet recorded. Bobcats are observed more frequently west of the Connecticut River.

Fisher sightings were reported at about the same level as in 2008, but reports have declined by more than 50% in the last 5 years. Trapping harvests will be examined for evidence of a population decline. Fisher sightings and harvests are more frequent east of the Connecticut River.

Carcasses of river otters (39), fishers (39), bobcats (30), and black bears (20) were examined to determine reproductive status, age, and diet. Otters, fishers, and bobcats had good indices of reproduction. The sample of female bears was too low to assess reproduction.

White-tailed Deer and Moose

Health of Connecticut's deer herd and changes in hunting pressure are assessed by collecting biological data from hunter harvested deer at check stations. Division staff collected biological data from about 2,000 deer during the 2009 shotgun/rifle deer hunting season.

A deer management plan implemented for the Bluff Point Coastal Reserve (Groton) has reduced the deer herd from about 222 deer per square mile down to about 20 per square mile. In January 2009, 18 deer were removed from the reserve over 4 nights by Department personnel to maintain the population at 20 deer per square mile. All deer removed were donated to Hunters for the Hungry and distributed to area food shelters.

The Division received a grant from the U.S. Department of Agriculture to conduct surveillance for chronic wasting disease (CWD) in Connecticut's deer population. Work under this grant was completed by the Division and the University of Connecticut's Department of Natural Resources and the Environment. Tissue samples were collected from about 650 vehicle-killed and hunter-harvested deer and all samples tested negative for CWD. Over 3,000 samples have been tested for CWD during the last 5 years and all tests were negative. Surveillance efforts will continue in 2010.

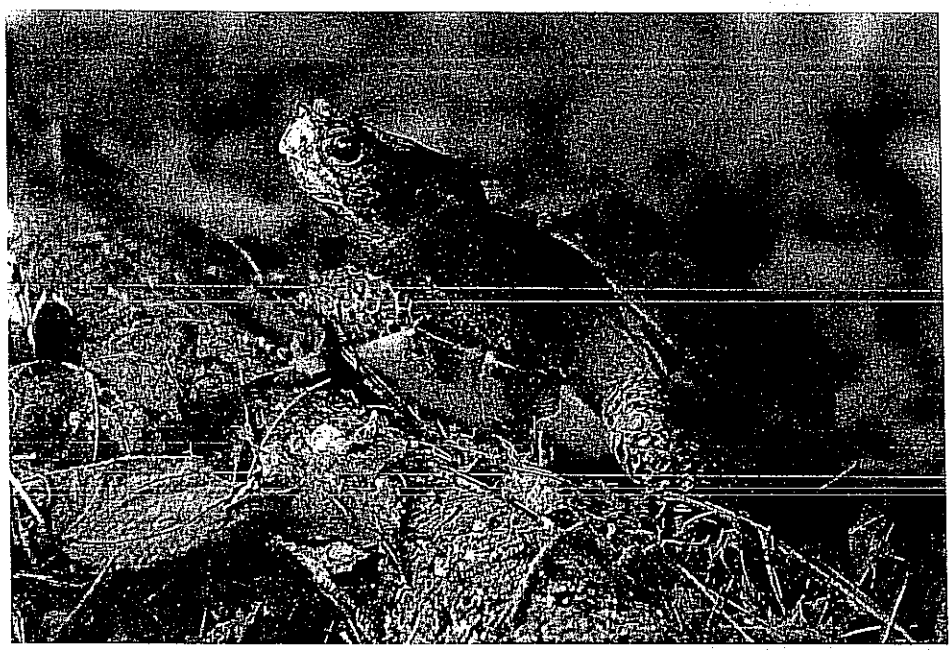
The Division received grants from Connecticut's Endangered Species/Wildlife Income Tax Checkoff Fund and the Northeast Wildlife Damage Management Cooperative to study the state's moose population. This cooperative study between the Division and University of Connecticut focuses on home range size, habitat use, movements, causes of mortality, and public perceptions about moose. Efforts to capture moose have been limited. So far, 2 bulls and 1 cow were captured, collared, and ear-tagged. One moose uses a 10-square mile area in Hartland, the collar of another moose malfunctioned, and efforts to locate the remaining moose have been unsuccessful. Moose capture efforts have resumed this winter.

Public and general hunter opinions about moose and moose management were collected in 2008 and final analysis was conducted in 2009. A detailed survey regarding moose and moose management was prepared and mailed to over 800 deer hunters in June, July, and September with a 64% response rate. Analysis is planned for spring, along with a final report for all surveys by May 2010. Data from this study will assist the Department in developing a comprehensive moose management plan. There were 93 reported moose sightings and 2 documented moose vehicle accidents in 2009.

Small Game

An estimated 5,395 daily and 809 season permits were issued for hunting on permit-regulated hunting areas during the 2008-2009 small game hunting seasons. Extrapolated survey data indicated that

P. J. FUSCO



Information on wood turtles was requested from residents in Fairfield County. Habitat loss and fragmentation is a concern in this county, which has the highest human population in Connecticut. One wood turtle was recorded.

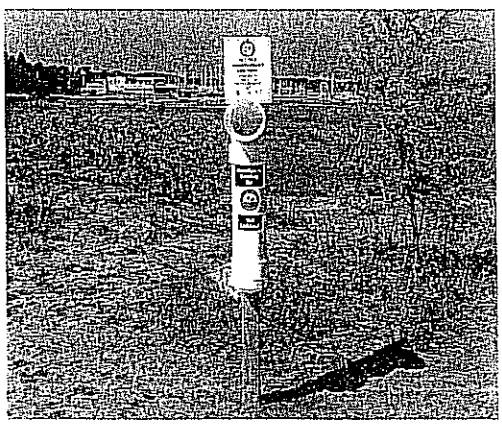
Monofilament Line Recycling Receptacles

Wildlife Division staff constructed monofilament fishing line recycling receptacles and placed them at inland and coastal sites around the state to encourage less waste line in the environment. Volunteers will collect the disposed fishing line from the receptacles. The line will be sent to a company that recycles it to make underwater habitat structures for fish.

Carelessly discarded fishing line can seriously harm or kill wildlife. Animals can become entangled in, or ingest, the line, whereby starvation, strangulation, or deep wounding are possible. Usually, wildlife cannot survive the injuries they sustain from entanglements.

Help protect wildlife and keep your favorite fishing area clean by placing waste fishing line in a recycling receptacle. It's the responsible thing to do!

L. SAUCIER, WILDLIFE DIVERSITY PROGRAM



hunters took an estimated 4,995 trips at the various areas. Based on data obtained from the permit-regulated hunting area surveys, overall harvest indices for ruffed grouse, woodcock, pheasant, cottontail, and gray squirrel show a declining trend.

Ruffed grouse population data were collected from observations and drumming surveys. A total of 38 sightings were reported from 13 towns, bringing the count to 240 since 2005. Drumming surveys were conducted in April. Grouse were heard on 10 of 13 routes and 20 unique drumming males were reported. The routes that produced the highest number of birds were in Barkhamsted and East Hampton, with 4 unique drummers heard along each route.

During 2009, 99 cottontail specimens were examined to determine distribution of New England and eastern cottontail rabbits throughout Connecticut. Of the 99 rabbits collected, 18 were roadkills, 64 were live-trapped, 15 were harvested by hunters, and 2 were collected through other means. Division staff identified 61 eastern cottontails and 35 New England cottontails; 3 specimens were not confirmed to species. A total of 1,350 rabbits have been collected since 2000; 77% of samples are eastern cottontail, 11% are New England cottontail, and 12% are unconfirmed.

Ring-necked Pheasants

During the 2009 fall hunting season, 14,303 adult ring-necked pheasants were purchased for release on 42 state-owned, state-leased, and permit-required hunting areas. The Division continues to use volunteers to assist with stocking on several public hunting areas.

Surveys at Suffield WMA

The DEP purchased the former General Cigar property in Suffield in 2008. The 195-acre area, now known as Suffield WMA, was formerly used for growing tobacco. It has more than 100 acres of open or managed field habitat and is contiguous to a 400-acre state wildlife area in Southwick, Massachusetts. Inventory of existing habitat conditions and wildlife use of the property began in 2009. Extensive herpetological surveys also were conducted by staff and volunteers, and vegetation, birds, butterflies, tiger beetles, other insects, and spiders were sampled, identified, and inventoried.

Reptiles

2009 marked the 20th field season of a bog turtle (state endangered, federally threatened) study to survey historic and new locations for the presence or absence of suitable habitat and turtles. The decline of bog turtles is mainly due to habitat loss and, in small part, to collection pressure. No bog turtles were found at the 2 historic sites surveyed.

Information on wood turtles was requested from residents in Fairfield County. Habitat loss and fragmentation is a concern in this county, which has the highest human population in Connecticut. One wood turtle was recorded.

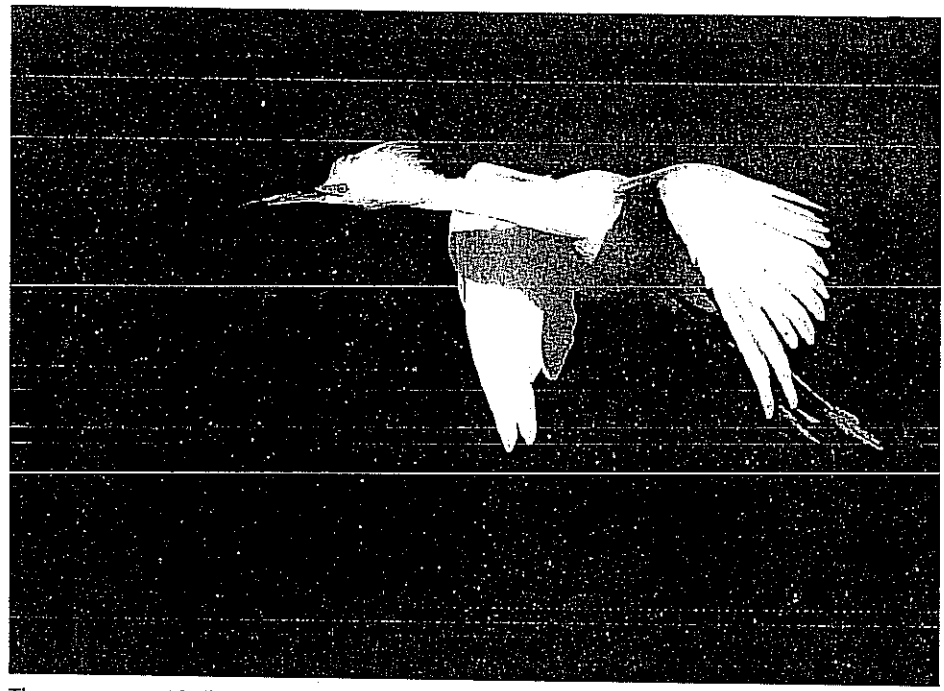
Invertebrates

Counts for adult Puritan tiger beetles (state endangered, federally threatened) were conducted at all known sites along the Connecticut River from late June through the beginning of August. Division staff closed a beach site to limit disturbance to the adult beetles from human recreation. Staff also searched for larval burrows at previously unchecked but potentially suitable sites along the Connecticut River. Boat surveys were conducted over 2 days to collect habitat information and sand samples at sandy beach areas along the Connecticut River to determine potential Puritan tiger beetle habitat. Vegetation was removed at 2 beetle sites to improve habitat.

Signs detailing state regulations and a map of closed areas were erected at 3 locations on the coast to protect horseshoe crabs.

Division staff and volunteers initiated a project to determine the distribution of the northern dusk-singing cicada (*Tibicen auletes*; state species of special concern). This annual cicada was thought to be extirpated from Connecticut until it was rediscovered in 2007. It is considered the largest cicada in North America. Unlike other cicadas, this species sings only at dusk. Therefore, it is unclear whether the cicada had been overlooked by scientists or it is truly rare. More research is slated for 2010.

The northern metalmark (state endangered) is a small butterfly that uses forest habitats with openings, often with limestone outcrops. It is dependent on its host plant, roundleaf ragwort. This past field season, habitat was restored at 3 northern metalmark colonies by removing invasive species, thinning the forest canopy, planting nectar sources, and erecting a fence around planted nectar sources to protect them from deer browsing. The restoration was accomplished with the help of work parties comprised of Dr. David Wagner's students from the University of Connecticut, the Connecticut Butterfly Association, The Nature Conservancy, various volunteers, and the Wildlife Division. Division and UConn staff also surveyed metalmarks at these colonies.



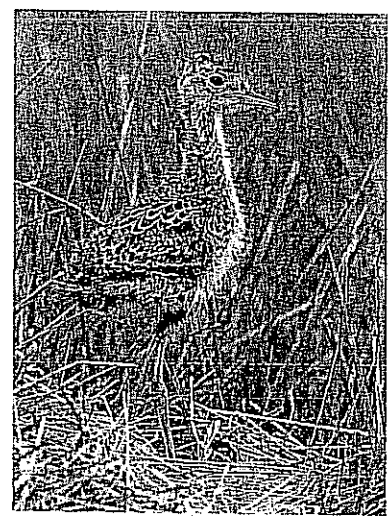
P. J. FUSCO (2)

The snowy egret is listed as a threatened species in Connecticut. The state Endangered, Threatened, and Special Concern Species List is reviewed and updated every 5 years. A public hearing was held in 2009 and the updated list will be published in 2010.

Habitat conditions of the 3 colonies have improved as a result of this work and northern metalmarks were observed at all of the sites this year.

Grassland Bird Monitoring at Bradley International Airport

The grassy areas surrounding the runways at Bradley International Airport in Windsor Locks have served as important breeding grounds for a number of state-listed bird species for more than 10 years. These grassland-obligate species, such as the upland sandpiper, grasshopper sparrow, and eastern meadowlark, require large tracts of grassland to successfully rear young. The Wildlife Division established 13 survey points around the 2 main runways in 1996 to gain a better understanding of how many of these birds are on the property and where. Point count surveys have been conducted most years since that time by Division staff (1996, 2001-2009) and volunteers from the Massachusetts Audubon Society (1998-2000). An estimated number of breeding pairs of each species can be calculated from the data collected. Unfortunately, upland sandpipers are difficult to document using point surveys because their large territory size and secretive nature introduces a large amount of uncertainty into the breeding pair calculation. Therefore, caution should be used when interpreting the figures listed for upland sandpiper. Also, it is important to note that the number of survey points was reduced from 13 to 12 in 2008 and 2009 because of loss of available habitat from various construction projects at the airport.



A young upland sandpiper forages in grassy habitat at Bradley International Airport during the summer of 2009. Bradley Airport is a primary breeding area for upland sandpipers in the state.

Estimated Number of Grassland Bird Breeding Pairs at Bradley International Airport

Species	1996	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008*	2009*
Bobolink	N/A	5	5	7	2	2	3	4	3	0	4	3	7
Eastern Meadowlark	N/A	4	7	12	11	9	6	4	2	6	3	2	5
Grasshopper Sparrow	6	8	11	10	4	10	13	12	15	12	14	9	9
Horned Lark	4	5	3	5	2	2	3	3	3	2	10	6	8
Savannah Sparrow	8	14	13	21	11	11	17	19	15	20	17	11	14
Upland Sandpiper^	8	12	5	6	5	3	4	4	2	4	1	0	1

**There were less survey points in 2008 and 2009 due to loss of habitat around the airport from various construction projects.*
^This species is not well documented during point count surveys because of extremely large territories.

Connecticut's Other Goose - The Brant

Article and photography by Paul Fusco, Wildlife Outreach Program

Everyone is familiar with the sometimes all-too-common Canada goose, but not so with its less common relative, the brant. Brant are found at scattered locations along the Connecticut shoreline only during winter. They are uncommon to fairly common in the appropriate habitats, and are usually found in small flocks numbering up to 40 or 50 individuals. Other species of goose are sometimes found in Connecticut, but only the Canada and brant regularly occur in numbers.

Brant are small, stocky geese. They have a black head, neck, and breast, and a white neck blaze. Their topside is dark brown and the belly is pale. Seen up close, brant have a short, stubby bill, and a short, black tail with a contrasting white underside. Their white upper tail coverts are long enough to obscure most of the black tail. At a distance, brant appear all dark with a white backside.

Range and Habitat

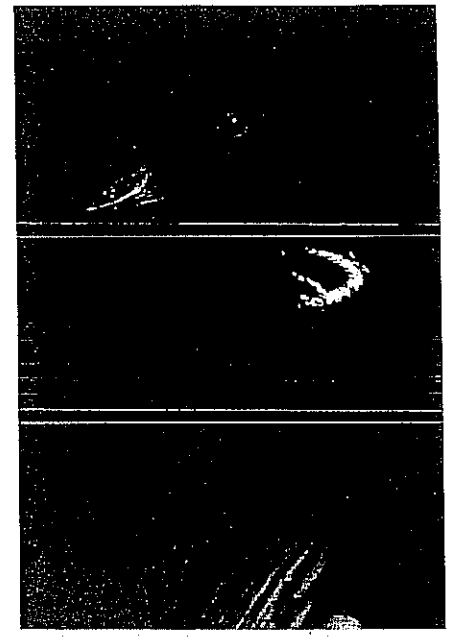
Nearly always associated with salt water, brant are maritime geese. They are rarely found on inland bodies of water with such occurrences usually happening only during migration. Brant breed in high Arctic tundra regions across the northern hemisphere, where they are found in wet coastal lowland tundra habitats, often with components of small ponds, inlets, and small islands. They usually nest among grass or sedge tussocks on the flat plain of small islets. Brant nest farther north than any other species of goose.

Brant tend to favor marshes in winter that fringe shallow water bays and estuaries where they can forage on submergent aquatic vegetation, especially eelgrass and sea lettuce. Brant have adapted in recent years to feeding at cultivated areas and grass fields that are close to the coast.

Flight

When compared to other species of goose, brant have rather long and slightly pointed wings. Their flight is fast and agile; they fly with rapid wing beats. Flocks typically fly low over water in ragged formations of lines or loose Vs.

Brant often vocalize in flight, sounding soft "*rronk, rronk*" calls. When birds are in a flock, the constant calls merge into a background noise that carries long distances across the water.

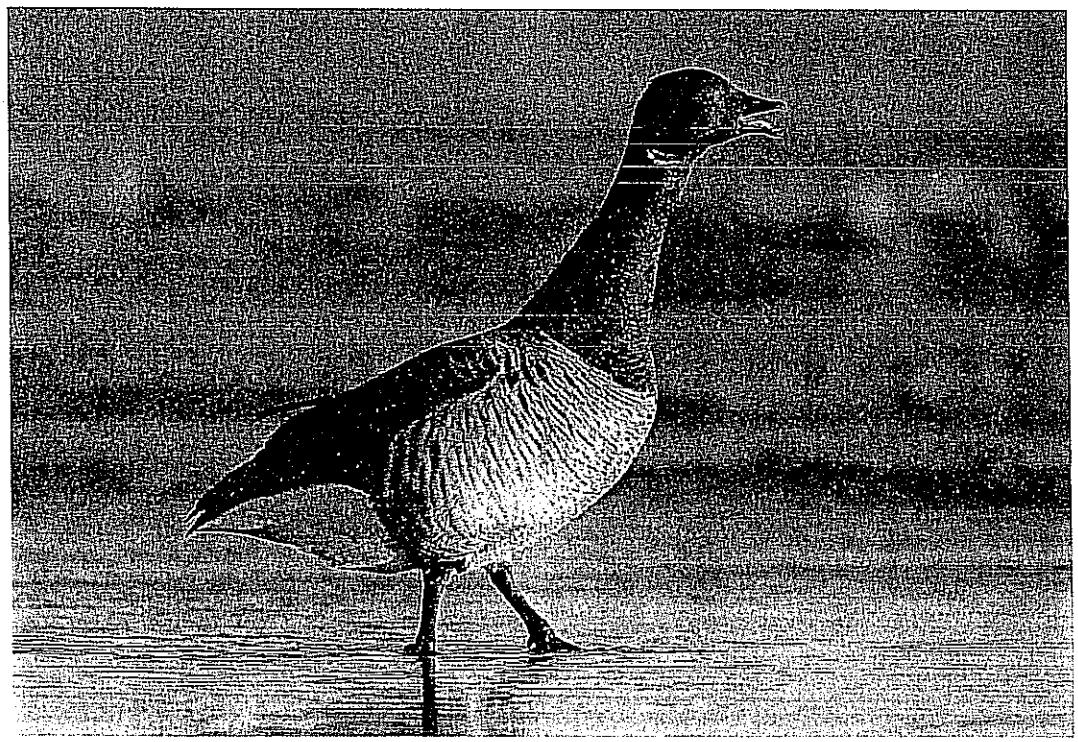


Conservation

Brant numbers fluctuate considerably depending on annual breeding success and food availability. In some years, few young are raised if nesting birds are subjected to extended periods of severe weather. Bad weather on the breeding grounds not only destroys nests and eggs, but also may kill young birds.

Brant populations declined dramatically in the 1930s when a worldwide die-off of their main food source, eelgrass, occurred. The die-off was caused by eelgrass wasting disease. Brant are specialized and were once thought to be heavily dependant on eelgrass as a winter food source. With the decline in eelgrass due to disease, a portion of the brant population was able to adapt to other food sources, including sea lettuce and grass. Since that time, eelgrass has been recovering, and so have brant, although brant are now using other foods more often. The brant population has recovered from the eelgrass wasting disease event of the 1930s, but not to the historic numbers seen before the population crash.

Although brant are cold weather birds, they are susceptible to extreme cold that freezes coastal waters. When coastal waters freeze, brant are unable to



Brant are small, coastal geese that breed in the high Arctic. Their wintering range on the East Coast includes the mid-Atlantic states from Massachusetts to the Carolinas.

Flocks of over-wintering brant are now a regular sight along the Connecticut shoreline.

access their aquatic food sources, making them vulnerable to starvation if the freeze is prolonged. At these times, brant may be seen foraging on lawns in coastal parks and golf courses.

Management

Brant hunting season length and bag limits are determined every year based on recommendations of the Atlantic Flyway Council. The Council is comprised of biologists from the U.S. Fish and Wildlife Service, and state and provincial agencies. Harvest of Atlantic brant was prohibited in the Atlantic Flyway from 1933 to 1952 due to low population numbers that were the result of the eelgrass die-off. Based on population levels after 1952, limited harvest was restored and continued into the 1970s.

The Atlantic brant population declined significantly during the 1970s due primarily to poor reproduction and also winter mortality, including high harvest. At that time, steps were taken to restrict harvest quotas, with a goal of maintaining the population at 150,000 birds before more liberal harvest levels would take affect. Because breeding success rates are extremely variable, hunting seasons are now adjusted accordingly.

Winter waterfowl surveys in the region provide the basis for population estimates that are used to help determine hunting seasons. In Connecticut, those surveys have been done every year from the air by Wildlife Division staff.

Population levels for Atlantic brant have fluctuated dramatically over the years. Estimates showed recovery from the 1930s to a high of 265,000 in 1961. By the 1970s, Atlantic brant numbers dropped to a low of 40,000 in 1973. Since the 1970s, numbers have rebounded but remain in the 150,000 range. The most recent estimated population for Atlantic brant was 151,000 birds in January 2009. Surveys show, that starting in 2004, brant numbers have topped 1,000 every year in Connecticut. Their numbers were much less in previous years. The dramatic increase indicates that more brant are wintering in Connecticut than ever before.

Three Subspecies

There are three subspecies of brant, differing in plumage characteristics and range.

Dark-bellied Brant - *Branta bernicla bernicla*

- Uniformly dark gray-brown overall with flanks and belly not contrasting with back.
- Breeds in western and central Siberia. Winters in western Europe, primarily along the coasts of England, France, and Germany.

Pale-bellied Brant - *Branta bernicla hrota*

- Also known as Atlantic brant.
- Pale belly contrasts with black chest and dark back.
- Side neck patches do not meet in front.
- Breeds in Greenland and northeastern Canada. Winters in northwestern Europe and the Atlantic coast of the United States from Massachusetts to North Carolina.

Black Brant - *Branta bernicla nigricans*

- Uniform sooty dark with contrasting white flank markings
- Black belly.
- Extensive white neck patches form nearly complete collar.
- Breeds in western Canada, Alaska, and eastern Siberia. Winters primarily from southern Alaska to California, with smaller numbers in eastern Asia.

Outreach and Education

The Division's Outreach Program published 5 issues of *Connecticut Wildlife* magazine, prepared press releases on wildlife topics, and assisted in the production of several publications, including the annual deer and turkey summaries and wildlife fact sheets. Most of these publications are available on the DEP Web site (www.ct.gov/dep/wildlife). Due to the new automated licensing system on the DEP's Web site, there was a large increase in the number of subscribers to *Connecticut Wildlife* magazine in 2009. Sportsmen and women who purchase their hunting and fishing licenses and permits through the automated system also have the opportunity to purchase a subscription to the magazine.

The 9th Master Wildlife Conservationist (MWC) Program series was completed by 24 participants at the Sessions Woods Conservation Education Center (Burlington). MWCs assist the Division with public programs and wildlife projects. Sixty-three MWCs provided over 3,700 hours of volunteer service in 2009.

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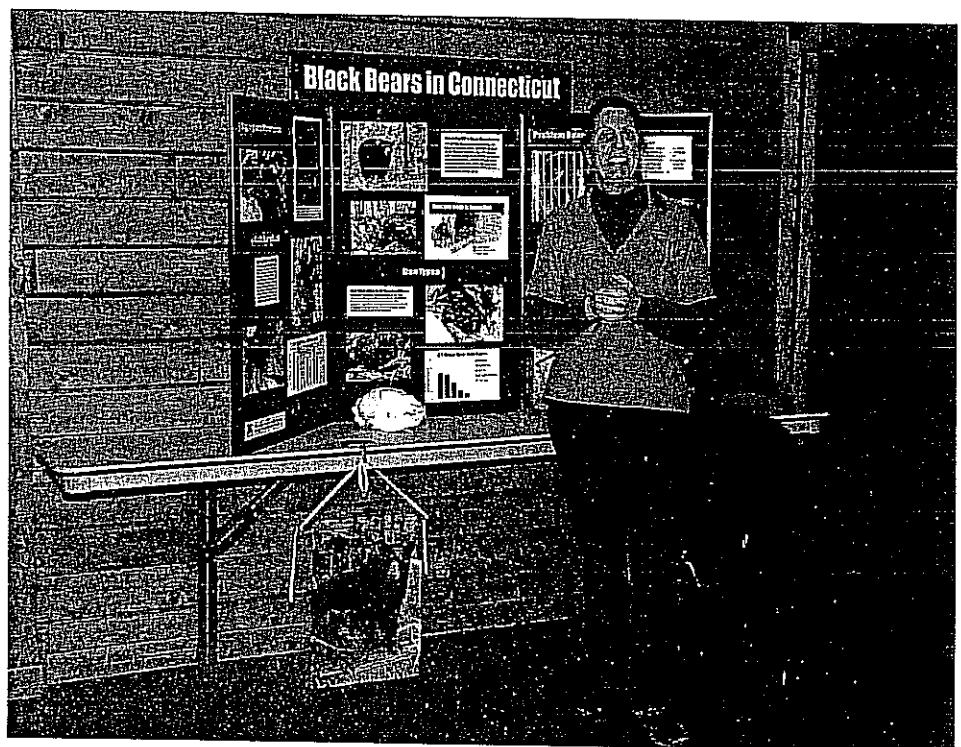
MWCs and Outreach Program staff presented 185 programs to various school, scout, civic, and general public audiences. Division biologists also presented public programs on various wildlife topics to such groups as conservation organizations, municipal commissions, students, and civic organizations. Requests for media interviews were received throughout the year.

Programs held at Sessions Woods included wildlife presentations and tours of the exhibit area that focused on Connecticut's changing landscape. Nine elementary school classes from the Hartford area visited Sessions Woods with assistance from a Newman's Own Foundation grant awarded to the Friends of Sessions Woods. Sessions Woods also was the host-site for a DEP-sponsored Great Park Pursuit event drawing over 500 families.

Wildlife displays, featuring coyotes, black bears, and state wildlife issues, were staffed at 12 public events.

The Division continues to provide bundles of rough-cut wood to groups for the purpose of constructing bluebird nest boxes. Forty-three groups participated and successfully turned 75 bundles into approximately 1,500 new nest boxes. Participation was statewide and included scout troops, school groups, nature centers, land trusts, conservation commissions, and many others.



C. CLARK, FoOR WILDLIFE DIVISION

Master Wildlife Conservationist Felicia Ortner provided black bear presentations to over 2,000 individuals and transported a tabletop bear display to 28 Connecticut libraries in 2009.

Friends of Sessions Woods

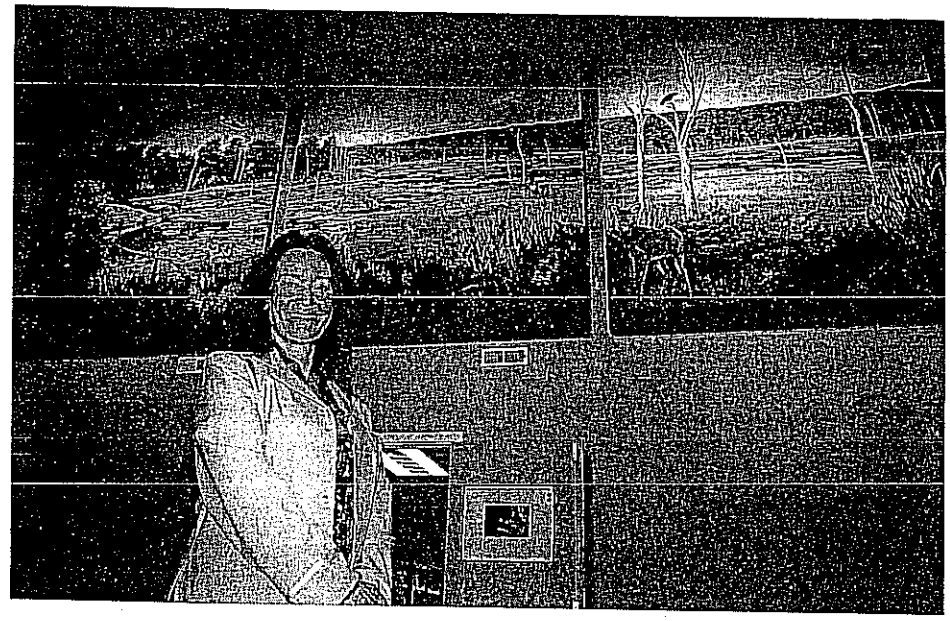
The Wildlife Division appreciates the support of the Friends of Sessions Woods, a volunteer organization established to facilitate projects and programs that enhance the value of Sessions Woods. The Friends received a second grant from the Newman's Own Foundation in 2009. This grant funded a second printing of the children's workbook, "Exploring Wildlife at Sessions Woods," and increased a transportation fund for field trips to Sessions Woods.

The Main Street Community Foundation, Inc., provided a grant in 2009 for a waterfowl display in the Education Center. Friends of Sessions Woods provided a 50% match to the grant. Two new exhibit cases have been purchased and beautiful waterfowl mounts are now on display.

Division staff conducted 2 bluebird nest box workshops and partnered with the White Memorial Foundation in Litchfield to organize a bat house building workshop. Participants learned firsthand how these artificial nesting structures can benefit Connecticut's wildlife. They also learned about the importance of checking and maintaining the boxes to ensure long term usage.

Thank You for the Support

The DEP Wildlife Division wishes to acknowledge all of the cooperators who have provided their support, either by volunteering their time, making financial contributions, donating equipment and supplies, or providing data. Our accomplishments over the past year would not have been possible without the help of our cooperators and the financial assistance provided by various grants, donations, and special funds.



P. J. FUSCO

Wildlife Mural Unveiled at Sessions Woods

Local artist and Master Wildlife Conservationist Charlene VanNess donated her time and talent to paint a stunning 8' x 24' mural depicting the beaver marsh at Sessions Woods and the various wildlife species that can be found there. Charlene's painting is realistic and detailed, from the sky to the trees to the water, as well as from the soaring red-tailed hawk to the river otter to the smallest of dragonflies. The Division and the Friends of Sessions Woods held a special event to unveil the mural in June, which drew at least 60 attendees, including DEP Deputy Commissioner Susan Frechette, Friends of Sessions Woods members, Wildlife Division staff, and Charlene's friends and family. The mural currently hangs in the lobby of the Sessions Woods Conservation Education Center, in Burlington, for all visitors to admire. Charlene did an amazing job of capturing the beauty of the beaver marsh, and all of her hard work and dedication are greatly appreciated.

Funding for Wildlife

Federal Aid in Wildlife Restoration Program: Many of the projects described in this annual report are funded by sportsmen's dollars, either through the purchase of licenses, permits and hunting equipment. The Federal Aid in Wildlife Restoration Program provides funding for wildlife management and research, habitat acquisition, wildlife management area development, and hunter education programs. Funds for this program are provided through an excise tax on the sale of sporting firearms, ammunition, and archery equipment.

State Wildlife Grants: This program provides federal dollars to support cost-effective conservation aimed at preventing wildlife from becoming endangered. A non-federal match requirement assures local ownership and leverages state and private funds to support conservation. Projects supported by State Wildlife Grants restore degraded habitat, reintroduce native wildlife, develop partnerships with private landowners, and collect data to find out more about declining species.

Endangered Species/Wildlife Income Tax Check-off Fund: This fund was created in 1993 by the State Legislature to allow Connecticut state income taxpayers to voluntarily donate portions of their tax refund to support efforts aimed at helping Connecticut's endangered species, natural area preserves and watchable wildlife.

Threatened and Endangered Species List

The Department is mandated to review and update Connecticut's Endangered, Threatened, and Special Concern Species List every 5 years. Taxonomic advisory committees were called on in 2007 to review the available data and assess the status of the state's plants and animals. A public hearing on the proposed changes was held in September 2009 and the regulation is now entering the final stages of approval. The new list also incorporates significant taxonomic revisions that are now widely accepted in the scientific community and resulted in name changes for many species. Look for the updated list of Endangered, Threatened and Special Concern Species in early 2010.

State Lands Management

Activities of the Division's State Lands Management Program are focused on the state's 105 wildlife management areas (WMA) comprising 32,000 acres. Projects also are undertaken at state forests, parks, and flood control areas. Activities continue to emphasize early successional habitats (i.e., young forests, old fields, grasslands). Such sites are rapidly declining due to the loss of farmlands, development, and the absence of fire within our landscape.

Even though state and Federal Aid in Wildlife Restoration funding have been limited over the past decade, the Division has received funding through the U.S. Department of Agriculture's Wildlife Habitat Incentives Program (WHIP). This valuable program was the first Farm Bill conservation program specifically developed to address wildlife resource needs on non-federal lands. Projects, since the inception of WHIP in 1998, have included warm and cool season grass establishment, riparian native tree and shrub plantings, water control structure replacement/enhancements, aspen/young forest regeneration, and old field enhancement/non-native plant management targeting invasive species, such as autumn olive, multi-flora rose, Asiatic bittersweet, tartarian honeysuckle, and tree-of-heaven.

Woodcock Demonstration Sites

An ongoing partnership between the Department and the Connecticut Woodcock Council has resulted in the accomplishment of the first state lands cooperative habitat enhancement project.

The Division completed a 13-acre regeneration harvest at Roraback WMA in Harwinton with funding spearheaded by the Connecticut Woodcock Council and contributions from the Wildlife Management Institute and Beardsley Zoo. The project, which was completed in August 2009, provides critical early successional forest/shrubland habitat for the benefit of American woodcock, New England cottontails, and an assortment of 47 "species of greatest conservation need" identified in Connecticut's Comprehensive Wildlife Conservation Strategy. This area now serves as a demonstration site to educate private landowners on early successional habitat and management strategies and opportunities. The area also is a component of an ongoing regional New England cottontail restoration project.

R.J. FUSCO

A skidder transports trees being harvested on a 13-acre site at Roraback WMA in Harwinton. Activities will enhance early successional forest habitat critical to a declining group of wildlife species, including New England cottontail rabbits and American woodcock.

Management practices include brush mowing, heavy-duty brush and tree removal with specialized equipment (i.e. brontosaurus, fecon mower, and feller buncher), prescribed burning, no-till fluffy grassland seedings, and selective herbiciding.

This past field season was productive by combining WHIP funds with staff commitments from the Wildlife, Support Services, Parks, and Forestry divisions. Approximately 989 acres of early successional habitat enhancement practices were completed at 38 sites throughout the state.

The State Lands Program continues to administer 7 Conservation Reserve Program contracts that involve the maintenance of grassland sites for a 10-year period at Robbins Swamp WMA in Canaan (2), Pease Brook WMA in Lebanon, Bartlett Brook WMA in Lebanon, Spignesi WMA in Scotland (2), and Bloomfield Flood Control Area. The Program also oversees 54 agricultural agreements on approximately 1,404 acres. This program allows farmers to use state-owned agricultural lands in exchange for maintaining wildlife habitat.

Division staff developed comprehensive 10-year management plans for Roraback WMA (Harwinton) and Flaherty Management Area (East Windsor), covering over 2,500 acres. These plans provide direction in the application of habitat management treatments over the next decade.

State Land Management staff also provided guidance for management projects to assure that impacts to wildlife were minimized and potential benefits were secured. These included:

- Input on 2 forest management plans comprising 1,316 acres;
- 2 enduro reviews;
- 47 property reviews;
- 12 reviews of Department proposals, including boat launches, access roads, trails, and facility development.

Operational activities included:

- Boundary posting of 8.5 miles at Suffield WMA (Suffield) and Flaherty Management Area.
- Access road upgrades (2.25 miles total) at Rose Hill WMA (Preston), Pease Brook WMA, Roraback WMA, Nod Brook Management Area (Avon), Simsbury WMA (Simsbury), and Suffield WMA.
- Routine/ongoing maintenance at key public access locations on 35 WMAs (mowing, herbiciding, painting gates, staining wooden signs, replacement of informational signs, and general site clean-up).
- Involvement with hazardous tree and encroachment issues.
- Installation of new signs at Suffield WMA, Shade Swamp WMA (Farmington), Skiff Mountain WMA, and Simsbury WMA.
- Enhanced public parking at Rose Hill WMA, Durham Meadows WMA

This skidsteer/fecon heavy-duty mower was used at Roraback WMA to remove non-native invasive plants from the forest understory prior to conducting a harvest. This practice, in association with selective herbicide application, will encourage the regeneration of desirable native tree and shrub species.

(Durham), and Pease Brook WMA.

- Maintenance at 16 inland marshes, including vegetation control via mowing and herbiciding and management of water levels to maximize wetland wildlife values and minimize human public safety conflicts.

Staff serves as the Department's Lead Core team member on the U.S. Fish and Wildlife Service's Conte Refuge Initiative, which will result in a more comprehensive federal plan incorporating the wildlife resource needs of Connecticut.

Belding WMA

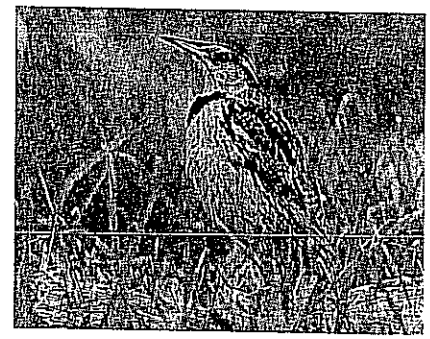
Funding from WHIP allowed the Division to accomplish several habitat projects at the 282-acre Belding WMA (Vernon) in 2009. A 3-acre stand of pitch pine was restored by removing competing overstory trees and disturbing the soil. Non-native invasive plants were controlled in old fields and grasslands via brush mowing, manual removal, and application of herbicides. Over 200 native shrubs were planted to enhance riparian habitat, and 225 chestnut trees were planted to create a more diverse regenerating hardwood stand representative of the historical forest composition. Annual bird, amphibian, and mast surveys also were conducted.

Outreach is a key component of activities at Belding WMA. Nineteen off-site programs on wildlife ecology and habitat management were conducted at local schools, public libraries, and the Tolland County Agricultural Center; 309 people participated in these programs. In addition, 18 outreach initiatives were conducted involving University of Connecticut students, Junior Gardeners, Cub Scouts, and general interpretive walks.

Third and fourth grade students from the Vernon School system visited Belding WMA as part of the science curriculum. In May, 234 third graders visited Belding over

Managing Declining Grassland Habitat

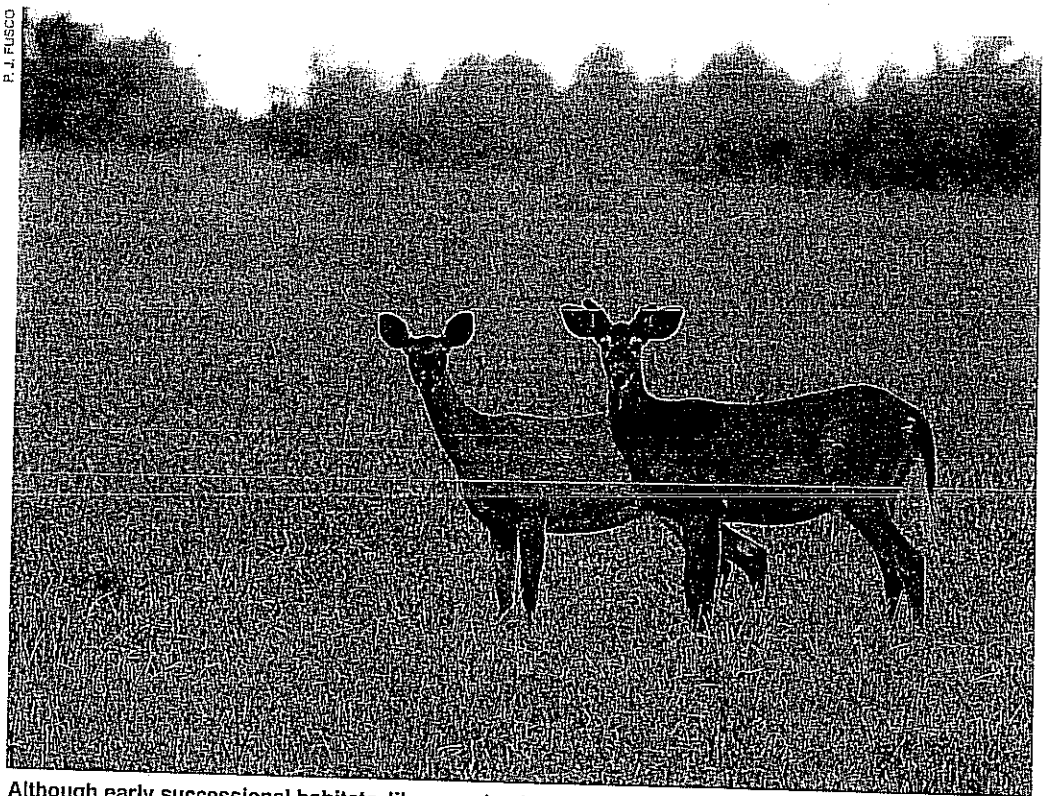
The Wildlife Division has been working closely with the Centennial State Land Management Committee, which is comprised of the DEP Forestry Division, Aquarion Water Company, and The Nature Conservancy, to manage and enhance grasslands for early successional habitat dependent wildlife at Flirt Hill. This 60-acre site, located in Centennial State Forest in Easton, is identified as an important birding site in Fairfield County and has been in need of management for the past several years. The Division has conducted a series of enhancements with funding provided by a Wildlife Habitat Incentives Program grant awarded in 2007. The project's primary goal is to improve the herbaceous component for ground-nesting birds, such as bobolinks, and reduce invasive non-native woody plants, like oriental bittersweet, and native woody plants, like poison ivy and blackberry. The intrusion of woody plants is a natural process of succession for fields that are abandoned or not intensively managed. Two vegetation management strategies are being conducted to maintain and improve the grassland/meadow habitat: 1) increase mowing frequencies to reduce woody plants, and 2) use selective herbicides on woody invaders so as not to affect grasses.



P.J. FUSCO (2)

The Eastern meadowlark is one of a variety of grassland specialists that will benefit from ongoing management activities at a 60-acre grassland site within Centennial State Forest in Easton. The Division is conducting multi-year treatments of mowing and selective herbiciding to reduce competition from non-native invasives and other undesirable plants (poison ivy) which has recently lessened the overall quality of this important grassland site.

Wildlife that depend on early successional habitat are declining throughout southern New England. Suburban and urban development have resulted in fragmented and isolated grassland habitat in Connecticut. Restoring and maintaining existing grasslands on state-owned properties has been identified as a critical need in Connecticut's Comprehensive Wildlife Conservation Strategy and the Department's Grasslands Initiative. Habitat management on sites such as Flirt Hill are critical if we are to maintain populations of bobolinks, American kestrels, indigo buntings, and other early successional habitat wildlife throughout our landscape.



P. J. FUSCO

Although early successional habitats, like grasslands, are created and maintained for the benefit of wildlife species that are dependent on those habitats, other wildlife, like white-tailed deer, will use the areas as well.

Native Trees and Shrubs Planted at Cockaponset State Forest

An ongoing early successional habitat enhancement project was initiated in late summer 2007 within a 50-acre block of Cockaponset State Forest in Middletown. The Division used a brontosaurus (heavy-duty, drum-style mower mounted on an excavator), a tractor-mounted brush hog, and herbicide treatments to control invasive woody plants, primarily mutiflora rose, oriental bittersweet, and autumn olive, within a 19-acre field formally used for growing corn and hay. Funding for the project was awarded by the U.S. Department of Agriculture, Natural Resources Conservation Service, through its Wildlife Habitat Incentives Program.

C-flex mesh fencing (1.75-inch x 2.25-inch mesh) was installed around clumps of native trees and shrubs planted at Cockaponset State Forest to protect them from deer browsing. For more information about this project, contact Ann Kilpatrick, District Wildlife Biologist, at the DEP's Eastern District Headquarters (860-295-9523).

PHOTO: A. KILPATRICK, HABITAT MANAGEMENT PROGRAM

Five hundred native, berry-producing trees and shrubs were planted in May 2009 in a 2-acre area along the edges of the field to further enhance the field's value to wildlife. Species planted included arrowwood, serviceberry, gray dogwood, red chokeberry, highbush blueberry, northern bayberry, blackhaw viburnum, and Eastern red cedar. These plants provide dense cover and a high quality food source for a variety of mammals, insects, and resident and migratory birds throughout the year. Long-term maintenance will include the selective application of herbicides and periodic mowing.

5 days to learn about habitats and wildlife. In September, 276 fourth graders visited for 6 days to learn about living and non-living parts of the environment.

Landowner Incentive Program

The Landowner Incentive Program continued to work in partnership with private landowners across Connecticut to restore, create, and manage habitat for rare or declining species at risk by carrying out a host of projects. Two projects were completed in 2009 and work continued on 11 other multi-phase projects. To date, 25 projects have been completed or have had one or more phases completed. Projects to control non-native phragmites are designed for multiple treatments to be implemented in yearly phases. Typically, phragmites requires a minimum of 3 rounds of herbiciding done during the growing season, which is followed by mowing to mulch the dead stalks during the dormant season. Phragmites treatment is typically funded for 3 years under the Program.

Early successional habitat projects will begin in the next several months at the The Nature Conservancy's Bumham Brook Preserve in East Haddam, Pleasant Valley Preserve in Lyme, and Audubon Connecticut's Bent of the River property in Southbury. Follow-up winter mulching will be carried out on most of the phragmites control projects. Despite no new funding, the Landowner Incentive Program continues to work using the original grant monies, but does face an uncertain future. Staff continues to execute contracts, and prepare project proposals and purchase requests for all previously approved projects. More projects will be implemented in 2010.

Look for an article in the March/April 2010 issue of Connecticut Wildlife *that highlights the most recent LIP projects accomplished in 2009.*

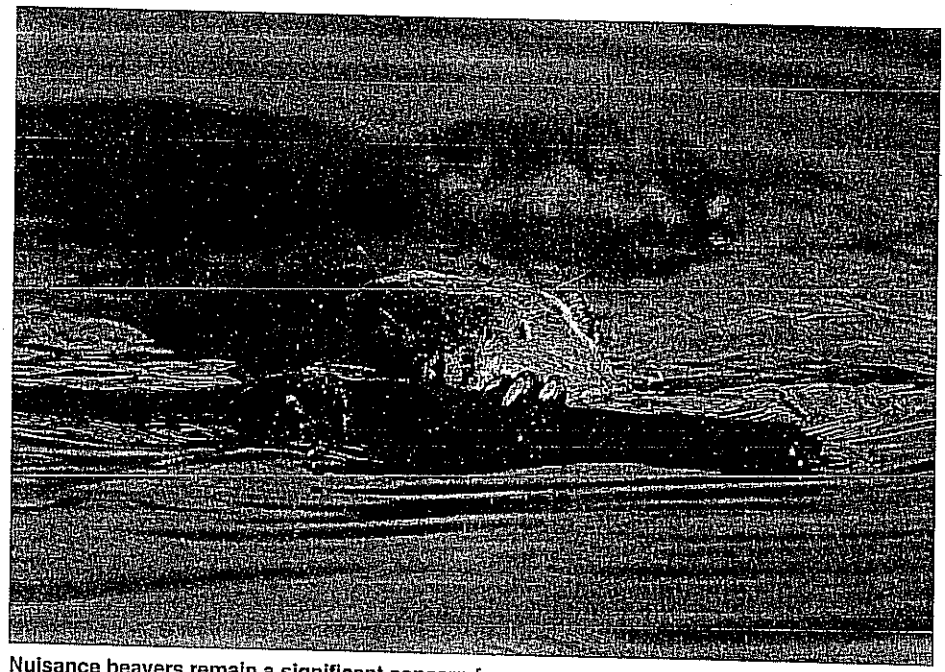
Technical Assistance

Nuisance Wildlife

The Division receives thousands of phone calls involving human-wildlife conflicts every year. The majority of these calls concern "urban" wildlife species that take advantage of the shelter and food found around homes and businesses. Although common wildlife comprise a majority of the calls, the diversity of wildlife in Connecticut and the capacity of many other species to adapt to living in developed areas has given rise to many other conflicts. Recommendations for controlling wildlife damage and identifying permanent solutions to prevent repeated damage are routinely provided to the public. Information also is provided on animal behavior.

The Nuisance Wildlife Control Operator (NWCO) Program licensed 365 NWCOs in 2009 who service an estimated 5,000 residents annually. NWCO reports indicate that most homeowner complaints involve problems caused by common species, such as gray squirrels, raccoons, skunks, and woodchucks. In addition to these routine species, the Division issued over 75 NWCO Special Permits for the control of certain mammals identified as special permit species and some migratory birds. The control of special permit species, such as muskrats, coyotes, and foxes, requires qualified NWCOs to use advanced trapping methods, equipment, and safety protocols not generally used or allowed in urban settings. NWCO special permits are also issued, in conjunction with federal Migratory Bird Depredation Permits, when the control of protected migratory birds, such as Canada geese, woodpeckers, gulls, or turkey vultures, is required to prevent severe property damages or resolve public health and safety issues.

Technical assistance staff held an Advanced NWCO Training Class for 8 NWCOs interested in providing live capture "round-up" services for the control of nuisance resident Canada geese. Class participants were provided with information on the biology and management of Connecticut's resident goose population, federal and state migratory bird laws, and depredation permits. They also received training on how to complete a Canada goose management plan for a site. Interested NWCOs also must complete a comprehensive Canada goose control training class and successfully round-up molting flightless Canada geese during a field training class conducted by the Department. Eleven NWCOs were recognized in 2009 as qualified to provide "round-up" services to landowners considering this method of goose control.



P. J. FUSCO

Nuisance beavers remain a significant concern for many property owners throughout Connecticut. Most concerns can be addressed with basic information on beaver behavior and the majority are addressed during the regulated trapping season.

Wildlife Rehabilitation

The Division responds to calls from the public regarding sick, injured, and orphaned wild animals. The Division does not have the resources to provide care for these animals. Therefore, it relies on a network of volunteer wildlife rehabilitators that consists of private individuals, staff at nature centers, and local veterinarians who have the proper training, as well as the appropriate facilities to house wildlife species until they can be returned to the wild. There are 254 individuals authorized to care for animals in need. Of that group, 4 are authorized to care for orphaned fawns and 43 have specialized training and authorization for handling rabies vector species (RVS; skunks, raccoons, foxes). In addition, 61 individuals have federal permits to care for migratory birds. In 2008, wildlife rehabilitators cared for 13,471 animals, which included 8,294 birds, 5,052 mammals (of which 133 were fawns and 399 were RVS), and 125 reptiles and amphibians. A total of 9,327 (69%) of the animals cared for were released back into the wild.

Nuisance Beaver Management

Nuisance beavers remain a significant concern for many property owners throughout Connecticut. The majority of complaints are received during April to October. Most concerns can be addressed with basic information on beaver behavior and the majority are addressed during the regulated trapping season. Concerns involving health and safety can be addressed outside of the regulated trapping season under specific statutory authorization. Those who inquire about nuisance beavers are provided with information about management options, including trapping, piping, fencing, and tolerance. Division staff also manages nuisance beaver problems on other Department properties. There is no relocation of beaver in the state. The number of nuisance beaver complaints received from private landowners in 2009 was 216.

Anyone with nuisance beaver or deer damage complaints should contact the Wildlife Division at either the DEP Eastern District Headquarters in Marlborough (860-295-9523) or the Sessions Woods office in Burlington (860-675-8130).

Commercial Deer Damage

The Deer Damage Permit Program addresses severe damage to crops of commercial farmers. The permit allows for the harvest of deer outside of the regulated deer hunting season, specifically to protect commercial crops. Farmers must meet certain requirements, and their property is inspected to evaluate the presence or absence of damage and the level of severity. Permits are valid from January 1 through October 31 of that year. Farmers are expected to use the regulated hunting seasons after October 31. All laws and regulations of the regulated hunting season apply to the use of crop damage permits. The Division processed 133 new deer damage complaints in 2009, which required 111 site inspections.

Mosquito Management

Connecticut's Mosquito Management Program is a collaborative effort involving the DEP Wetland Habitat and Mosquito Management Program, Connecticut Agricultural Experiment Station, Department of Public Health, Department of Agriculture, and the University of Connecticut Department of Pathobiology and Veterinary Science. Ninety-one mosquito trap locations are maintained throughout the state from June through October to monitor the mosquito population and track mosquito-borne pathogens like West Nile virus (WNV) and eastern equine encephalitis (EEE) that can cause disease in humans, birds, and animals. In the 2009 season, 289,243 mosquitoes were trapped and tested, and 33 WNV-positive pools of mosquitoes were isolated. There also were 118 EEE isolations, which encompassed the eastern half of the state and, by late summer, parts of Fairfield County as well.

There were no confirmed human cases of EEE in Connecticut, although horse and non-native bird deaths were reported. A horse reportedly died from EEE in Plainfield, and the virus also was identified in penned pheasants in

Wetland Restoration Projects

Invasive Plant Control

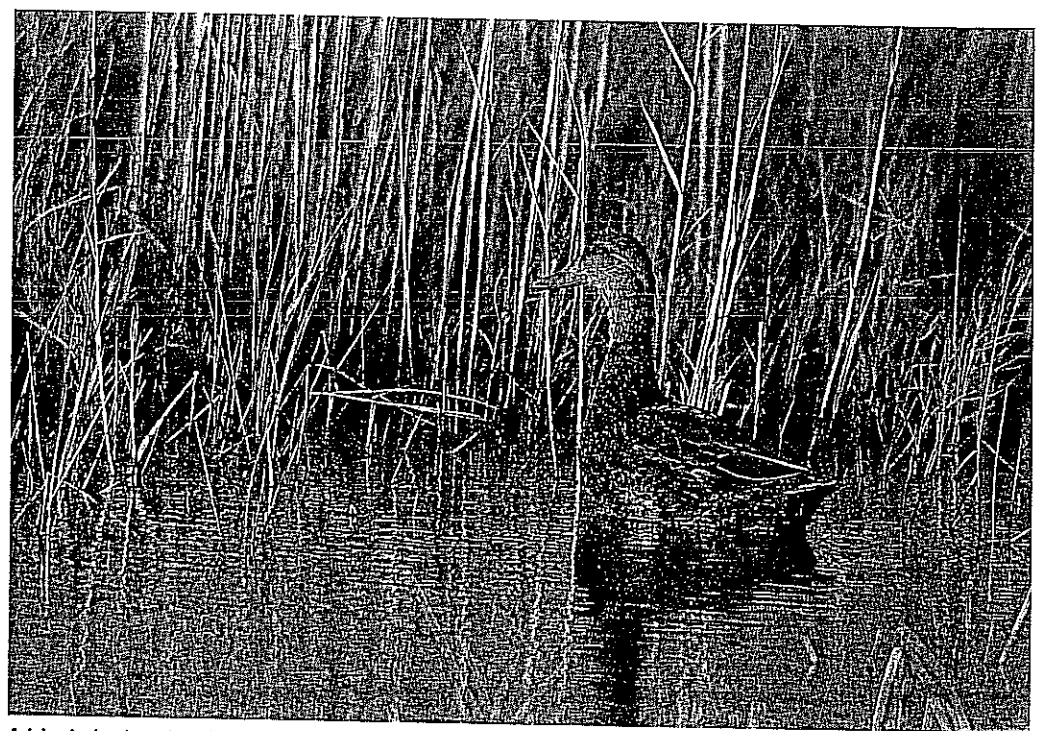
The Division's Wetlands Habitat and Mosquito Management (WHAMM) Program used specialized mowing machines and sprayed herbicides to control phragmites, an invasive plant, on 341 acres:

- The Wildlife Habitat Incentives Program funded phragmites control projects at Assekonk Swamp WMA in North Stonington; the Verkades Property in Waterford (part of Harkness Memorial State Park); Barn Island WMA dike 1 in Stonington; John Minetto State Park in Torrington; White Memorial Conservation Center in Litchfield; Penny Hill Road in Ashford; and Harkness Memorial State Park in Waterford.
- Under the Natural Resources Conservation Service's Wetlands Reserve Program, projects were completed at Ayers Point, Ragged Rock, and Plum Bank in Old Saybrook; Back River, Upper Island in Old Lyme; Silver Sands State Park in Milford; and Sherwood Island State Park in Westport.
- The Landowner Incentive Program funded control projects at North Cove, South Cove, and Mill Meadows in Old Saybrook; Lieutenant River in Old Lyme; Lords Cove in Lyme; Bermuda Road, Grove Point, and Sherwood Mill Pond in Westport; Flanders Nature Center in Woodbury; Seaside Avenue in Guilford; and Long Wharf in New Haven.
- The U.S. Fish and Wildlife Service funded a phragmites control project at Poquetanuck Cove in Ledyard.
- The Connecticut Department of Transportation funded control projects at Groton Airport in Groton, Shenipsit State Forest in Stafford Springs, and West River in West Haven.

Other invasive plant projects included the control of 4 acres of Japanese knotweed at Groton Airport and Harkness State Park, and 0.5 acres of yellow floating heart at Camp Columbia State Forest in Morris.

Habitat Projects:

The WHAMM Program also completed a river habitat project for the DEP Fisheries Division on the Shetucket River in Scotland. A wetland habitat project for the Department of Transportation was initiated in 2009. Five 1-acre pools will be created on the Turkey Hill Brook Section of the Wheeler Wildlife Management Area in Milford. A 14-acre section of this area is currently being treated for phragmites control.



P. J. FUSCO

A black duck swims in a tidal marsh restored by the Wetlands Habitat and Mosquito Management Program. The Program was one of the first wetland habitat restoration programs in the country with a dedicated staff and specialized, low ground pressure equipment used exclusively in restoration activities.

Specialized Equipment for Controlling Phragmites

The Wildlife Division's Wetlands Habitat and Mosquito Management Program uses several pieces of specialized low ground pressure equipment to spray and mow the invasive common reed, also known as phragmites. This equipment is able to travel on sensitive wetland areas without causing damage.

The ARGO 8x8 Avenger EFI is an amphibious low ground pressure tracked vehicle. It has a load capacity of 1,150 pounds on land and 1,000 pounds on water. The speed is 20 mph on land and 3 mph on water. Ground pressure is 0.67 pounds per square inch (psi) when using tracks. A pull-behind 44-inch rough-cut mower, called a Swisher, can be attached to the ARGO or an ATV and can cut most phragmites stems up to 2 inches in diameter.

The Posi-track ASV 2810 is a low ground pressure, rubber tracked loader. The base machine has a 20-inch track and a speed of 6 mph. Ground pressure is a maximum of 3.0 psi. Factory installed equipment includes a 72-inch dirt bucket with bolt-on cutting edge and front brush cutter.

The Marsh Master II is a low ground pressure, light weight, high-flotation aluminum pontoon vehicle. The base machine is 14 feet, 6 inches in length and 8 feet wide, with a track width of 28 inches. Speed on land is 9 mph and 2 mph on water. Maximum ground pressure is 1 psi. It came with a 100-gallon herbicide spray system and a rotary cutter attachment that can cut most phragmites stems up to 2 inches in diameter. The purchase of the Marsh Master was made possible with funding from the sale of Connecticut's Migratory Bird Conservation (Duck) Stamps.

R. WOLFE, WETLAND RESTORATION PROGRAM (2)

The Marsh Master is an amphibious tracked unit that can be outfitted with a tank sprayer for herbicide applications or used for mowing dead phragmites stems.

The Posi-Track ASV is a low-ground pressure vehicle used for mowing dead phragmites stems and brush.

Norwich and Ellington. The high level of EEE activity noted in 2009 was not just confined to Connecticut. There were confirmed horse cases in New Jersey, Rhode Island, Maine, and Massachusetts. A three-year-old girl from New Hampshire became ill from EEE and a 70-year-old man from upstate New York died in September from EEE after being bitten by an infected mosquito. Although the risk of contracting EEE from an infected mosquito is very low, the mortality rate is over 50% in humans and over 90% in horses.

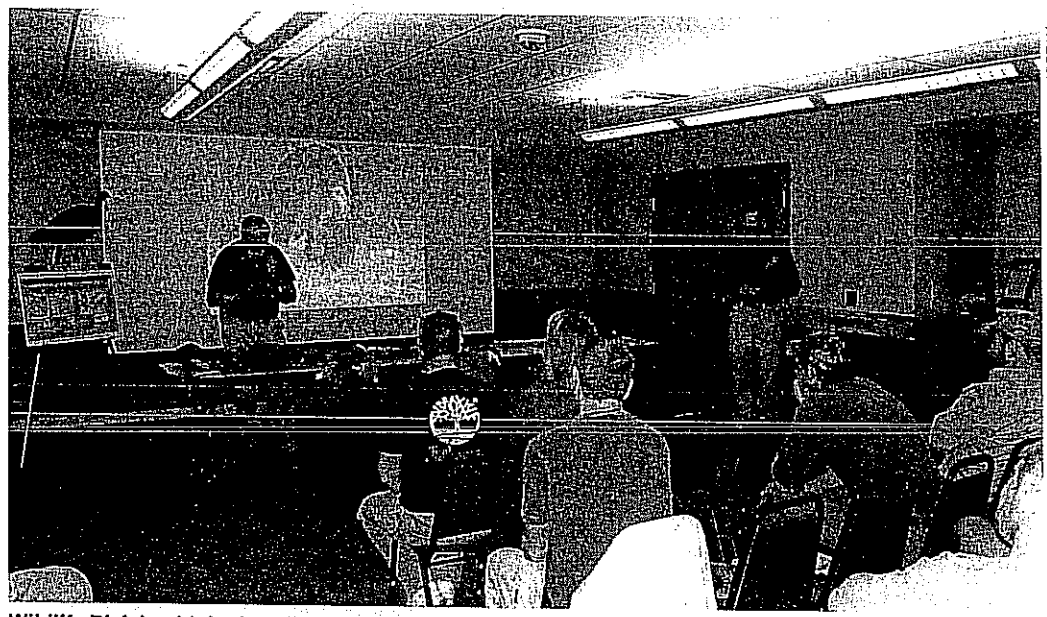
Submit Artwork for the CT Junior Duck Stamp Contest

Young Connecticut artists have an opportunity to submit their artwork of a waterfowl species in the Connecticut Junior Duck Stamp competition sponsored by the Connecticut Waterfowlers Association (CWA). Students are judged in four groups according to grade level. Three first, second and third place entries are selected for each group. A "Best of Show" is selected by the judges from the 12 first-place winners. The "Best of Show" is then entered into the national Junior Duck Stamp Contest. The first place design from the national contest is used to create a Junior Duck Stamp for the following year. Junior Duck Stamps are sold by the U.S. Postal Service for $5 each. Proceeds support conservation education and provide awards and scholarships for the students, teachers, and schools that participate in the program.

The deadline for submitting artwork for the 2010 competition is March 15, 2010. Artwork should be sent to Chris Samor, 29 Bower Hill Rd., Oxford, CT 06478. More information about the Junior Duck Stamp Program is on the U.S. Fish and Wildlife Service Web site at www.fws.gov. To learn more about the Connecticut Waterfowlers Association, visit the organization's Web site at www.ctwaterfowlers.org.

Conservation Education/Firearms Safety Program

The 328 volunteer instructors in the Conservation Education/Firearms Safety (CE/FS) Program contributed 10,961 hours of service to teach 4,127 students in 140 hunting safety courses. Student enrollment has been increasing slightly over the past several years, with the largest gains seen among the bowhunting classes. Courses were presented on firearms hunting (76), bowhunting (57), and trapping (5). Two supplemental coyote land trapping courses were given to 65 trappers who completed the trapping education course or its equivalent and wish to use land sets for trapping coyotes on private land. Twenty-five new instructors were certified during 2009.



C. BRUCKERHOFF, CE/FS PROGRAM

Wildlife Division biologist Mike Gregonis (right) assists CE/FS Senior Instructor Ray Hanley at the Wild Turkey Hunting Workshop held at Cabela's in spring 2009.

The firearms hunting home study course continues to grow in popularity. In 2009, 8 courses were offered, allowing 156 students to complete most of the program at home. The workbook-based home study course continues, but will be phased out in the near future as the Internet version (www.IHEA.com) has become more popular with both students and instructors. Students are still required to attend an 8-hour field day that is comprised of 4 instructional topics, a field course, live firing, and an exam. Additional on-line course offerings are planned for 2010, including a self-study course for potential new instructors. A daytime firearms course taught by CE/FS instructors was hosted by Cabela's in East Hartford. Another daytime course was presented at the Division's Franklin office last summer, as was done for the past 5+ years to accommodate youth who are out of school for the summer. These courses, which met the needs of students who are unable to attend evening classes, were in high demand and filled to capacity quickly.

The Glastonbury Public Shooting Range in Meshomasic State Forest continues to be popular among shooting enthusiasts. The range was operational for its fourth full season. Public use remained high, with phone reservations often filled to capacity each Monday. Weekend range hours were extended to accommodate deer hunters in preparation for the firearms deer seasons. The range provided opportunities for 1,847 shooters using pistol, rifle, shotgun, and air gun during the 60 days of operation. Clay target shooting is not allowed. Five seasonal employees, who are trained as Range Safety Officers, currently staff the facility. The range is open free-of-charge for public use on weekends from April through November, although the 2009 opening was delayed until May. It also is available to CE/FS firearms hunting instructors, on request, for use in conducting the live fire component of the hunting safety course. All operational costs of the range continue to be funded through the section 10 allocation of the Federal Aid in Wildlife Restoration Program.

The High Rock Range in Naugatuck State Forest and the Wooster Mountain Shooting Range at Wooster Mountain State Park (Danbury) continued public operations through cooperative agreements with 2 shooting organizations.

Big Changes in Licensing and Hunter Reporting

Connecticut completed its conversion to a fully automated system for all of its recreational hunting and fishing licenses in 2009. Internet sales of hunting and fishing licenses started in 2008, but by the start of 2009, all of the state's licensing agents had terminals for issuing licenses. Over 195,000 sportsmen used the system in 2009. Each of them was assigned a unique Conservation ID Number to use when purchasing licenses and permits. This allows the DEP to easily keep track of the licensing history of sportsmen and fine tune surveys that track hunting and harvest trends. Sportsmen with Internet access can update their contact information and print a new license at anytime by logging on to the licensing system. By keeping their mailing and e-mail addresses up-to-date, they also are assured of getting the latest information about hunting. Broadcast e-mails were sent out this year to hunters with information about new regulations, new hunting areas, and increased bag limits for deer in certain management zones.

A new tagging and reporting system for deer and turkeys also was launched in 2009. Hunters are now required to use newly-designed kill tags to record information about the deer or turkeys they harvest. Copies of the tags are in the Connecticut Hunting and Trapping Guide or on the DEP Web site. Then, within 24 hours, they are required to report their harvest, either on the DEP Web site (www.ct.gov/dep/hunting) or by calling a toll-free number (1-877-337-4868). The only exception is that deer taken during the first 4 days of the shotgun/rifle season must be brought to a check station so that Division biologists can collect biological information from the harvested deer. The new harvest reporting system makes it possible for the Division to keep a running tally of harvests during each season and post season results on the DEP Web site.

Wildlife Calendar Reminders

Programs at the Sessions Woods Conservation Education Center

Programs are a cooperative venture between the Wildlife Division and the Friends of Sessions Woods. Please pre-register by calling 860-675-8130 (Mon.-Fri., 8:30 AM-4:30 PM). Programs are free unless noted. An adult must accompany children under 12 years old. No pets allowed! Sessions Woods is located at 341 Milford St. (Route 69) in Burlington.

Feb. 6.....Nature Walk and Drawing Workshop, 1:00 PM-3:00 PM. Natural Resources Educator Laura Rogers-Castro will lead an interpretive walk focusing on Connecticut's wildlife and the conservation of wildlife habitat. Artist Judy Bird will teach a nature drawing class focusing on personal observation and expression of nature. Snow date is February 7.

March 3.....Wildlife Tales, starting at 6:30 PM. When the European settlers arrived in Connecticut, which mammals did they encounter? How have habitats changed since the first settlers arrived in the 1600s to the present? Are coyotes native to Connecticut? What is the wild turkey and fisher connection? Join Natural Resource Educator Laura Rogers-Castro for this indoor presentation to learn about some of the wildlife species found in Connecticut.

March 21.....Mushrooms, from 9:30-11:30 AM. Join the Connecticut Valley Mycological Society, during their annual meeting at Sessions Woods, for a presentation on mushrooms. There will be a coffee hour at 9:30 a.m., followed by the speaker at 10:30 a.m.

April 11.....The Friends of Sessions Woods Annual Meeting with a Program on Bats, starting at 1:00 PM. The Friends of Sessions Woods Annual Meeting at the Sessions Woods Conservation Center is open to all! Learn about Connecticut's bats and white-nose syndrome in a presentation by Wildlife Division staff. White-nose syndrome is a condition in bats associated with the deaths of hundreds of thousands of hibernating bats in the northeastern United States. It was first noticed near Albany, New York, in 2007. Since March 2008, biologists and cavers have documented dead and dying bats at over 25 caves and mines in New York, Vermont, Massachusetts, and Connecticut. What do we know about white-nose syndrome and how has it affected the bats of Connecticut? A potluck dessert extravaganza will precede the presentation at 12:30 p.m. Please bring a dessert to share.

Hunting Season Dates

Jan. 15-Feb. 10.....Special late Canada goose season in the south zone only.

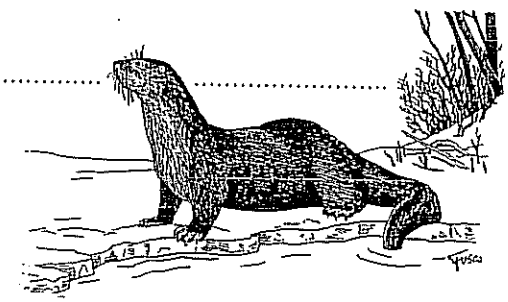
UPDATE: *Printed versions of the 2010 Connecticut Hunting and Trapping Guide and the 2010 Connecticut Angler's Guide will not be available until April 2010. Information about 2010 seasons and regulations are available on the DEP's Web site (www.ct.gov/dep/hunting and www.ct.gov/dep/fishing). The printed versions will be available at more than 350 locations statewide -- including town halls, bait and tackle shops and other vendors selling outdoor equipment, DEP facilities, and commercial marinas and campgrounds. The 2010 guides will have a new and improved look. After making this transition, the DEP plans to return to its traditional publication schedule and have printed copies of the 2011 guides available late next December.*

View Bald Eagles at the Shepaug Observation Area in Southbury

The Shepaug Bald Eagle Observation Area, in Southbury, is open to the public on Wednesdays, Saturdays, and Sundays, from 9:00 AM to 1:00 PM, through March 17, 2010, — strictly by advance reservation. All individuals and groups wishing to visit the site to view eagles must make a reservation for a particular date, as there will be a limited number of visitors allowed per open day. Reservations can be made on Tuesdays through Fridays, from 9:00 AM to 3:00 PM, by calling 1-800-368-8954.

New prices effective Jan. 1, 2010

Connecticut Wildlife



Subscription Order

Please make checks payable to:
Connecticut Wildlife, P.O. Box 1550, Burlington, CT 06013

Check one:

☐ 1 Year ($8.00) ☐ 2 Years ($15.00) ☐ 3 Years ($20.00)

Name: _____

Address: _____

City: _____ *State:* _____

Zip: _____ *Tel.:* _____

Check one:

☐ Renewal
☐ New Subscription
☐ Gift Subscription

Gift card to read:

_____

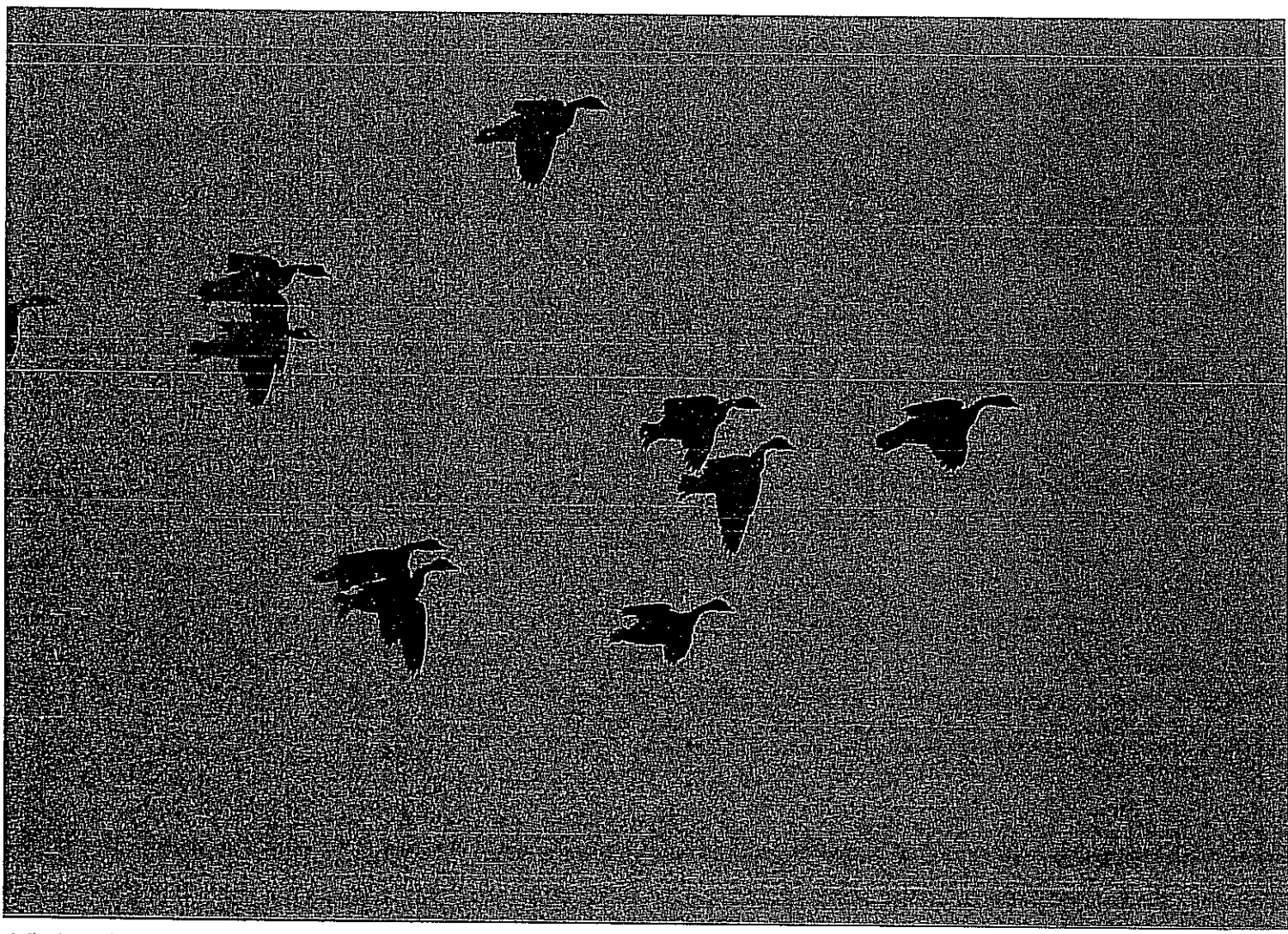
_____

Donation to Nonharvested Wildlife Fund: $ _____

Help fund projects that benefit songbirds, threatened and endangered species, reptiles, amphibians, bats, and other nonharvested wildlife species.

Bureau of Natural Resources / Wildlife Division
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

EXPIRES COMP.
MANSFIELD CONSV/INLD WETLANDS
TOWN HALL
4 S EAGLEVILLE RD
STORRS MANSFIELD CT 06268-2574



A flock of wintering Canada geese seen flying at dusk. The geese are starting their descent to an area to spend the evening.

CCM Municipal Leader Training

Visit www.ccm-ct.org/education for the latest updates

January 30	**READY TO LEAD:** *Critical Tools for Newly Elected Local Legislators* New Britain
February 3	**Municipal Officials' Guide To Human Resources** *Presented by ConnPELRA* Meriden
February 5	**So Now You're a Municipal Attorney** In association with CAMA Berlin
February 6	**FOIA** – *What Board, Commission, & Committee Members Must Know* Middletown
February 17	**Making the Best Land Use Decisions** *– Wetlands, Water Quality Protection and Land Use Change* Glastonbury
February 20	**Municipal Meetings:** *Understanding Parliamentary Procedures* East Hartford
February 27	**Ethics, Accountability and Conflicts of Interest** Monroe
March 11	**Municipal Meetings:** *Understanding Parliamentary Procedures* Manchester
March 18	**FOIA** – *What Board, Commission, & Committee Members Must Know* Farmington
March 23	**Brownfield Remediation & Redevelopment:** *How Has the Landscape Changed?* Milford
March 24	**The Freedom of Information Act** *What Police & Fire Depts. Must Know* Cromwell

This calendar is subject to change.

Cancellation Policy:
Please notify us within 24 hours prior to the workshop if you cannot attend, or a cancellation fee of $10 will be incurred. No Shows will also be billed at $10 per person. Substitutions are always acceptable.

CONNECTICUT CONFERENCE OF MUNICIPALITIES
THE VOICE OF LOCAL GOVERNMENT

900 Chapel Street, 9th Floor
New Haven, CT 06510-2807

Making the Best Land Use Decisions
– Wetlands, Water Quality Protection and Land Use Change

Making the Best Land Use Decisions
– Wetlands, Water Quality Protection and Land Use Change

Wednesday
February 17, 2010
9:00 a.m. – 12 noon
Glastonbury Town Hall
Glastonbury, CT

FREE to CCM Members

CONNECTICUT CONFERENCE OF MUNICIPALITIES
THE VOICE OF LOCAL GOVERNMENT

Municipal Leader Training

Registration

Making the Best Land Use Decisions
– Wetlands, Water Quality Protection and Land Use Change

Wednesday, February 17, 2010
Glastonbury Town Hall
Glastonbury, CT

Seating Limited!
Register BY February 11th

9:00a.m. - Noon
Registration begins at 8:30 a.m.

Please make a copy of this form and fill in completely for each person attending.

Name _____

Title _____

Municipality _____

Address _____

City/Town _____ Zip _____

Phone _____ Fax _____

E-mail _____

Registration Fee (per attendee)
CCM Member Town/City .....NO CHARGE
Non-Member $120

FREE to CCM Members

Payment for Non-Members:

☐ Check enclosed (payable to CCM) Credit Card:

☐ MasterCard ☐ VISA ☐ Discover ☐ AMEX

Card # _____

Expiration Date _____ CVV Code _____

Name on Card _____

Billing Address _____

City/State/Zip _____

Signature _____

Driving Directions will be e-mailed with your registration confirmation.

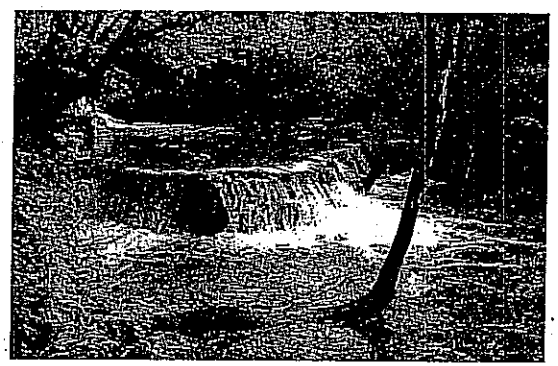
Program Overview

This workshop is designed to help participants understand the relationship between wetlands, water quality, and permanent land use change.

Section One will cover how the State of Connecticut defines wetlands and how wetlands work to protect water quality.

Section Two will cover the valuable reference material currently available to assist individuals creating plans, and/or review plans for permanent land use changes.

Section Three will introduce participants to the concepts behind Low Impact Development and how it can be the most effective tool available to protect and improve water quality in the streams and lakes of Connecticut.



5 Ways to Register:
Online: www.ccm-ct.org
E-mail: ccmtraining@ccm-ct.org
Phone: CCM Training Hotline 203-498-3018
Fax: 203-497-2477
Mail: CCM, 900 Chapel Street, 9th Floor, New Haven, CT 06510

Learning Objectives

- Find out the State of Connecticut's definition of wetlands
- Learn how wetlands protect water quality
- Understand what areas of land use degrade wetlands and water quality
- Review publications on how to prevent water quality degradation:
  - *2002 CT Guidelines for Soil Erosion and Sediment Control* and the new companion Photo Archive
  - *2004 CT Storm-water Quality Manual*
- Learn about Low Impact Development (LID) and how it protects water quality

Who Should Attend?

- Mayors/First Selectmen
- Town/City Managers
- Conservation Commission Members
- Planning & Zoning Commission Members
- Wetland Commission Members
- Wetland Enforcement Officers
- Public Works Directors
- Parks & Recreation Directors
- Municipal Land Use Officials
- Town/City Engineers

CCM Presenters

Sean Hayden
Northwest Conservation District
Sean Hayden has worked as a Soil Scientist at the Northwest Conservation District for the past 10 years. He is responsible for providing the towns and residents of Northwest CT with technical and educational tools necessary for the promotion of natural resources conservation.
Sean's responsibilities include wetland delineation, natural resource mapping, certification of sediment and erosion control plans, the review of storm-water quality management plans, construction inspections, and design and delivery of environmental management education/training programs.